



Über dieses Buch

Dies ist ein digitales Exemplar eines Buches, das seit Generationen in den Regalen der Bibliotheken aufbewahrt wurde, bevor es von Google im Rahmen eines Projekts, mit dem die Bücher dieser Welt online verfügbar gemacht werden sollen, sorgfältig gescannt wurde.

Das Buch hat das Urheberrecht überdauert und kann nun öffentlich zugänglich gemacht werden. Ein öffentlich zugängliches Buch ist ein Buch, das niemals Urheberrechten unterlag oder bei dem die Schutzfrist des Urheberrechts abgelaufen ist. Ob ein Buch öffentlich zugänglich ist, kann von Land zu Land unterschiedlich sein. Öffentlich zugängliche Bücher sind unser Tor zur Vergangenheit und stellen ein geschichtliches, kulturelles und wissenschaftliches Vermögen dar, das häufig nur schwierig zu entdecken ist.

Gebrauchsspuren, Anmerkungen und andere Randbemerkungen, die im Originalband enthalten sind, finden sich auch in dieser Datei – eine Erinnerung an die lange Reise, die das Buch vom Verleger zu einer Bibliothek und weiter zu Ihnen hinter sich gebracht hat.

Nutzungsrichtlinien

Google ist stolz, mit Bibliotheken in partnerschaftlicher Zusammenarbeit öffentlich zugängliches Material zu digitalisieren und einer breiten Masse zugänglich zu machen. Öffentlich zugängliche Bücher gehören der Öffentlichkeit, und wir sind nur ihre Hüter. Nichtsdestotrotz ist diese Arbeit kostspielig. Um diese Ressource weiterhin zur Verfügung stellen zu können, haben wir Schritte unternommen, um den Missbrauch durch kommerzielle Parteien zu verhindern. Dazu gehören technische Einschränkungen für automatisierte Abfragen.

Wir bitten Sie um Einhaltung folgender Richtlinien:

- + *Nutzung der Dateien zu nichtkommerziellen Zwecken* Wir haben Google Buchsuche für Endanwender konzipiert und möchten, dass Sie diese Dateien nur für persönliche, nichtkommerzielle Zwecke verwenden.
- + *Keine automatisierten Abfragen* Senden Sie keine automatisierten Abfragen irgendwelcher Art an das Google-System. Wenn Sie Recherchen über maschinelle Übersetzung, optische Zeichenerkennung oder andere Bereiche durchführen, in denen der Zugang zu Text in großen Mengen nützlich ist, wenden Sie sich bitte an uns. Wir fördern die Nutzung des öffentlich zugänglichen Materials für diese Zwecke und können Ihnen unter Umständen helfen.
- + *Beibehaltung von Google-Markenelementen* Das "Wasserzeichen" von Google, das Sie in jeder Datei finden, ist wichtig zur Information über dieses Projekt und hilft den Anwendern weiteres Material über Google Buchsuche zu finden. Bitte entfernen Sie das Wasserzeichen nicht.
- + *Bewegen Sie sich innerhalb der Legalität* Unabhängig von Ihrem Verwendungszweck müssen Sie sich Ihrer Verantwortung bewusst sein, sicherzustellen, dass Ihre Nutzung legal ist. Gehen Sie nicht davon aus, dass ein Buch, das nach unserem Dafürhalten für Nutzer in den USA öffentlich zugänglich ist, auch für Nutzer in anderen Ländern öffentlich zugänglich ist. Ob ein Buch noch dem Urheberrecht unterliegt, ist von Land zu Land verschieden. Wir können keine Beratung leisten, ob eine bestimmte Nutzung eines bestimmten Buches gesetzlich zulässig ist. Gehen Sie nicht davon aus, dass das Erscheinen eines Buchs in Google Buchsuche bedeutet, dass es in jeder Form und überall auf der Welt verwendet werden kann. Eine Urheberrechtsverletzung kann schwerwiegende Folgen haben.

Über Google Buchsuche

Das Ziel von Google besteht darin, die weltweiten Informationen zu organisieren und allgemein nutzbar und zugänglich zu machen. Google Buchsuche hilft Lesern dabei, die Bücher dieser Welt zu entdecken, und unterstützt Autoren und Verleger dabei, neue Zielgruppen zu erreichen. Den gesamten Buchtext können Sie im Internet unter <http://books.google.com> durchsuchen.

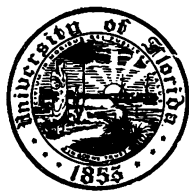
This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

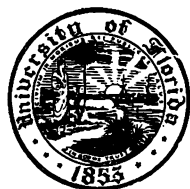
<https://books.google.com>



UNIVERSITY
OF FLORIDA
LIBRARIES



UNIVERSITY
OF FLORIDA
LIBRARIES



THE ALPINE JOURNAL

VOL. XXVIII. Nos. 203-206

THE
ALPINE JOURNAL:

A RECORD OF MOUNTAIN ADVENTURE

AND

SCIENTIFIC OBSERVATION

BY MEMBERS OF THE ALPINE CLUB

VOL. XXVIII.

FEBRUARY 1914 TO NOVEMBER 1914

(Nos. 203-206)

EDITED BY GEORGE YELD

LONGMANS, GREEN, AND CO.

89 PATERNOSTER ROW, LONDON,
NEW YORK, BOMBAY, CALCUTTA, AND MADRAS.

1914

CONTENTS.

	PAGE
Accidents, in 1913	79, 222
in 1914	400
Address, Valedictory. <i>By Sir E. Davidson, President</i>	1
Aiguille, Mont, and Beyond—On the Outskirts. <i>By W. T. Kirkpatrick</i>	369
Bietschhorn, the, The First Ascent of, from the Baltschiederthal. <i>By J. P. Farrar</i>	305
Blanc, Mont :—	
the Brenva face of. <i>By J. P. Farrar</i>	306
by the Brouillard Ridge	199
Blanc Mont Range, the, Climbs in the Swiss part of. <i>By J. W. Wyatt</i>	165
Brahma Peaks, The, of the Pir Panjal Range. <i>By Dr. E. F. Neve</i>	46
Bromo and Krakatau, The Volcanoes. <i>By the late Dr. Tempest Anderson</i>	178
Camps of the Alpine Club of Canada in 1913, and Mr. A. O. Wheeler's Exploratory Work	76
Casualties among Members of the A.C. in the British Expeditionary Force	407
Corry, J. B.	407
Oppenheim, L. C. F.	407
Strutt, E. L.	407
Caucasus, the, Notes on	240, 335, 409
Some New Climbs in. <i>By W. N. Ling</i>	131
Visit to, of Dr. Théodore Thomas	100
Clifton Dent Memorial, The	58
Cook, Mount, Accident on. Death of Mr. S. L. King and his guides, Thomson and Richmond	222
Correspondence :—	
Bilaphond Pass, and Name 'Saltoro.' Note on. <i>By Mrs. Bullock Workman</i>	340-1

Correspondence— <i>continued.</i>		PAGE
Caucasian Place Names. <i>By D. W. Freshfield</i>		409-10
Chamonix Faces of Aiguille du Plan. <i>By F. Lochmatter</i>		77
Cook, Mount, Routes up. <i>By Rev. H. E. Newton</i>		344-5
Elbruz, The Twin Summits of. <i>By D. W. Freshfield</i>		249
Linda Route up Mount Cook, N.Z. <i>By G. E. Mannering</i>		411-12
Nun Kun Massif, Height of the Peaks of. <i>By Mrs. Bullock</i>		
<i>Workman</i>		410-11
Cross-Country Gleanings in 1913. <i>By J. H. Clapham</i>		145
Dutch New Guinea, Mountaineering in. <i>By A. F. Wollaston</i>		296
Engadine Guides, The, Peter Jenny and Hans Grass		129
Exhibition of Photographs by the Alpine Club, 1914		309
Expeditions :—		
New, in 1913		80
in 1913, and 1908		230
in 1914		401
Various, in 1913		93, 233
in 1914		405
Gabelhorn, Ober-, First Ascent of. <i>By the late A. W. Moore</i>		273
The North-West Ridge of the. <i>By R. Bicknell</i>		28
Himalayan Notes		339, 410
In Memoriam :—		
Amphlett, G. T.		197
Boss, Theophil		313
Corry, John Beaumont		397
Cullinan, Sir F. F., K.C.B.		194
East, Sir Alfred, R.A.		48
Heathcote, Charles Gilbert		49
King, Sydney Locke		195
Morshead, Frederick		186
Pöll, Franz, of Mathon		198
Preuss, Paul		50
Italian Alpine Club, Jubilee of		101
Account of Congress and Banquet held on the Occasion of.		
<i>By J. G. C. Eaton</i>		201
Japan, Rambles in. A Playground at the East End. <i>By</i>		
<i>D. W. Freshfield</i>		156
Kangra Himalayas, the, Week-end Scrambles in. <i>By H. D.</i>		
<i>Minchinton</i>		382
Matterhorn, the, Second Ascent of, by the East Face. <i>By</i>		
<i>Julius Marshall Elliott</i>		281
Mountaineering in 1855. <i>By Sir J. H. Ramsay</i>		261
New Zealand Notes		344, 411
Pain de Sucre, Le (Aiguilles du Soreiller)		203
Plan, Aiguille du, The Chamonix Faces of the		77-9
Pousset, Pointe du, and the Becca Dentavu. <i>By the Editor</i>		
<i>(G. Yeld)</i>		182
Qualivo, Piz, The North Face of. <i>By E. L. Strutt</i>		394

	PAGE
Robson, Mount, The Ascent of. <i>By Conrad Kain</i>	35
Sengla, La, Ascent of N. Summit from the Col de la Reuse d'Arolla. <i>By A. S. Jenkins</i>	38
Sinai, Scrambles in. <i>By G. G. Howard</i>	13
Whirlpool River, the, a Trip up. <i>By A. L. Mumm</i>	355

ALPINE NOTES :—

Akademischer Alpen-Club, Zürich	238
Alcohol, The Effect of, on Mountaineers	239-40
Alpine Club :—	
Dinner, Winter,	129
Exhibition of Photographs, 1914	309
Library Catalogue	59, 207, 313, 398
Obituary	95, 234, 332
Proceedings	120, 251, 349
Alpine Club, The, of Canada	335
Camps of, in 1913, and A. O. Wheeler's Exploratory Work 76-7	
Alpine Guide, Ball's :—	
Central Alps, Parts I. and II.	95, 234, 332, 407-8
Western Alps, Vol. I.	95, 234, 332, 407
Association of British Members of S.A.C., Swiss Guides' .	
Relief Fund started by	408
Blanc, Mont, Flight over	95
Chain, Group, or Range of, Guide Books to	333
New Hut in	98
Blanche, Dent, Ascent of, by W. Face	334
Cortina, Mr. H. Wood and	100
Courmayeur District, the, Weather in	237
Winter in	95
Cristaux, Col des	333
D. und CE.A.V., Accounts of	235
Engadine, the, New Huts, in	97-8
Engelberg Valley, Drainage of	95-6
Famous Veteran, A	335
Finsteraarhorn, the, First Ascent of	96-7
Fuji-Yama, An Ascent of	101-3
Gaspard, Père, the Dauphiné guide, Illness of	334
Grossglockner, the, Free access to	334-5
Himalaya, Dr. Filippi's Expedition in	237
Huts, New, of S.A.C.	236-7
Jamthal Hütte	98-9
Kasbek, An Ancient Monastery on	99-100
Kilimandjaro, Club Huts on	97
Moore, A. W. (the late), MS. Journals of	332
'Modern Mountain Craft.' <i>By Geoffrey Winthrop Young</i>	332-3
New President of the Royal Geographical Society	234

ALPINE NOTES—*continued.*

	PAGE
Ö.A.C., Accounts of	235-6
Guide of, to Mont Blanc	237
Huts of	237
Parc National, Le, de la Bérarde	334
Pennine Alps, New Guide to	333
Plan, Aiguille du, Dr. G. Mayer's Ascent of	96
Ronchi, Colle dei	96
Schweizer Alpen-Club, Accounts of	236
Jubilee of	100
New Regulations of	99
Obligatory Insurance of Members of	236
Swiss Alps, Club Huts of, in Winter	98
Tricouni Boot Nails, The	238-9
Tümlihorn (Simmenthal), First Ascent of	334

REVIEWS AND NOTICES :—

<i>Alpenvereinssektion Bayerland, Jahresbericht der, 1913</i>	248
<i>Baillie-Grohman, W. A., Sport in Art</i>	103
<i>Bell, Dr. J. M., The Wilds of Maoriland</i>	412
<i>Broune, B., The Conquest of Mount McKinley</i>	243
<i>Bruce, Col. the Hon. C. G., Kulu and Lahoul</i>	415
<i>Douglas, R. de B., La Dent du Midi</i>	111
<i>Dübi, H., Die ersten fünfzig Jahre des Schweizer Alpen-club</i>	113
<i>Freshfield, D. W., Hannibal Once More</i>	247
Unto the Hills	414
<i>Gaillard, E., Les Alpes de Savoie, Guide pour l'Alpiniste</i>	119
<i>Italian Alpine Club, L'opera del Club Alpino Italiano nel primo suo Cinquantennio, 1863-1913</i>	113
<i>Kurz, L., Blanc, Mont, Guide de la Chaîne du</i>	347
<i>Larden, W., Inscriptions from Swiss Chalets</i>	106
<i>Martin, W., P. Reuschel and R. Weitzenböck, Führer durch die Mont Blanc Gruppe in Auftrage des Ö.A.C.</i>	118
<i>Neve, A., Thirty Years in Kashmir</i>	110
<i>Norske Turist Forenings Aarbok for 1914</i>	416
<i>Pretti, Dr. F., and Dr. K. Hager, Peter Placidus a Spescha, sein Leben und seine Schriften</i>	346
<i>Rey, G., Alpinismo Acrobatico</i>	242
<i>Steinitzer, A., Der Alpinismus in Bildern</i>	115
<i>Wundt, T. von, Hinauf</i>	114

PROCEEDINGS OF THE CLUB	120, 251, 349
-----------------------------------	---------------

ERRATA	103, 237
------------------	----------

ILLUSTRATIONS :—

	PAGE
Aiguille, Mont, Cheminée d'Ascension	<i>facing</i> 370
from Fau.	371
from Grand Veymont	370
Passage des Meules	371
Argentière, Aiguille d', from Saleinaz Glacier	174
Bifertenstock, from the Bündner Tödi	232
Blanc, Mont, and Aiguilles, from Col d'Argentière	174
Brenva Face, Routes up	<i>on</i> 307
Bromo (Volcano), from Moneggal Pass, on edge of Tengger	
Crater	<i>facing</i> 180
Casse, Grande, from W.	148
Caucasus :—	
Adai Choch, and Songuta Choch, from S.E. edge of	
Double Peak	<i>facing</i> 132
Betsho Camp, Muratbi (porter), and Melitan (cook) at	<i>on</i> 141
Dongusorun Pass, Baggage-train Crossing	143
Edena Tau, from Rion Valley	<i>facing</i> 138
Elbruz from the Dongusorun Post, Valley of Baksan (in	
colour)	<i>facing</i> 131
Nuam Quam, The Two Snowtops of	140
Tschantschachi Khokh and The Curtain, from Kazarma,	
Mamison Pass, S. side	<i>facing</i> 136
Tur Choch, View from Summit, looking W.	134
Ushba, S.W. Peak, and Mazeri Tau, from above Betsho	
<i>facing</i>	142
Chamba Peaks, from Kuasi	382
Chambeyron, Brec de, from Tête de la Fréma	377
from Tête des Oupech	376
from Tête du Pissai	376
Chardonnet, The, N.E. Arête of	170
Dutch New Guinea :—	
Carstenz Glacier, Icefall of	<i>facing</i> 304
Mount, Cliff of	297
from the S.	297
Utakwa Valley, Upper	304
Kangra Himalayas :—	
Dhaoli Dhar Range, from Dharmsala cantonments	
<i>facing</i>	390
Dharmsala, Training party at, 1908	386
Dharmsala Matterhorn, Bivouac behind	384
Summit of	384
Lakha, Beer at the Bivouac above	386
Training party above	384
'Mon,' The, from Ridge of Slab Peak	384
Looking West on	390
Gabelhorn, Ober, from the Bouquetins, Two Views	
<i>between</i> 28 & 29	
Grivola, The, from the E.	<i>facing</i> 184

ILLUSTRATIONS—*continued.*

PAGE

Japan :—

Alps, Japanese, from E.	<i>facing</i>	156
Ikao, Village Street at	"	159
Kamikochi, Views at, and near	"	162
Myogi-San, Rock Pinnacles at	"	159
Two Views on	"	160
Krakatau from N.E.	"	180
Levanna, The, from Ceresole	"	150

New Zealand :—

Cook, Mount, and Hochstetter Icefall from Haast bivouac	<i>facing</i>	227
and Mount Dampier, from summit of Mount Tasman	<i>facing</i>	228
Noir, Tour, from Petite Fourche	"	170
Pain de Sucre	<i>on</i>	80
Pierre, St., Grand, from foot of N. face of Roccia Viva	<i>facing</i>	152

Portraits :—

Amphlett, George Thomas	<i>facing</i>	197
Corry, the late Major, D.S.O.	"	396
Douglas, Lord Francis	"	281
Elliott, Julius Marshall	"	281
Grass, Hans	"	130
Group of Guides and Climbers	"	276
Jenny, Peter	"	129
Kain, Conrad, guide	<i>on</i>	35
King, Sydney Locke	<i>facing</i>	195
Morshead, F. (1877)	"	190
The Same in later life	"	193
Preuss, Dr. Paul	"	50

Rocky Mountains, Canadian :—

Brown, Mount, and Mount Hooker	<i>facing</i>	363
Geikie, Mount, Summit of	"	363
Great Glacier in	"	366
Mumm's Peak, &c.	"	355
Robson, Mount	"	355
E. Face	"	36
from Fraser Valley showing W. and S. Face, and S. and S.S.E. Arêtes	<i>on</i>	37
Sengla, La, E. face of	<i>facing</i>	40

Sinai :—

Camels Resting	<i>facing</i>	18
Serbal Jebel	"	23
Buttresses of	<i>on</i>	23
Tricouni Boot-nails	"	238
Sirac, N.E. Face, from les Bans	<i>facing</i>	377
Viso, Monte, from the North	"	374

THE ALPINE JOURNAL.

FEBRUARY 1914.

(No. 203.)

VALEDICTORY ADDRESS.

By SIR EDWARD DAVIDSON, President

(Read at the Winter Meeting, December 15, 1913.)

IT is now more than thirty years ago, whilst I was acting as Hon. Secretary of this Club on behalf of the late Mr. Clinton Dent during his absence abroad for purposes of professional study, that our then President (Mr. Charles Edward Mathews) asked me to suggest to him a subject matter for a paper which he had undertaken to read to the Club at the Annual General Meeting of 1880 on the completion of his Presidential term of office.

Much flattered by this mark of confidence from one who never was gruelled for lack of matter and seldom at a loss, I, with the proverbial rashness of youth and its disregard of consequences, promptly suggested that he could not do better than give us, in his own inimitable style, a survey of his term of office, which had been for many reasons a specially eventful one. He smiled on the idea, or, as I believe up-to-date people say now-a-days, the idea smiled on him, and he adopted it.

Little did I think what a nemesis the future had in store for me, or how 'thirty years after' I was destined, like Hamlet's engineer, to be 'hoist with my own petard.' Never in my wildest dreams had it then occurred to me that, either by the irony of fate or through some kinder cause, I should one day come to occupy this Chair; but it is always the unexpected that happens, and I am still wondering, after three years' occupation of it, how on earth I ever got here. However,

VOL. XXVIII.—NO. CCIII.

B

being here somehow or other, I must endeavour to discharge the difficult task that has been laid upon me to-night with as little suffering as possible to my audience and to myself.

Suggestions, like curses and chickens, come home to roost ; but although, as I have explained, my martyrdom has been in a sense self-inflicted, it is certainly not self-sought, and in these circumstances I hope that it may be curtailed to the shortest period consistent with the traditions of the Club, with regard to the character and duration of the tortures to be inflicted on each successive Chief at the termination of his tenure of office, before he is permitted, purified by penance and by suffering, to attain to, and to join his predecessors in, the happy hunting grounds which are reserved for those who have passed this Chair.

In the case of your penultimate President these ordeals, as perhaps was fitting to the occasion and the personage, lasted for some days and were so protracted and severe as to almost partake of a mediæval type. He bore them as might have been expected of a mighty pillar of the Church, and emerged from them with great glory. My immediate predecessor was subjected to a somewhat mitigated form of trial, which he also endured with the stoicism of a Red Indian and the combined insensibility of an international half-back and an ex-champion of the Middle Weights. I am cast in a less heroic mould, and can only throw myself on the mercy of the assembled braves who surround this—reading desk, and plead for yet milder treatment—for something at any rate without boiling oil in it.

The three years during which I have had the honour to preside over our Club have been, in comparison with the stirring times which preceded them, rather uneventful both at home⁷ and abroad. We have held on the even tenor of our way and have pursued a tranquil and a prosperous career. Although we may not have made history, the credit and prestige of the Club have, I trust, been well maintained. Except in one most sad instance no fatal mountaineering accident has befallen any member of our Club, and indeed in this connexion I rejoice to be able to say that during the last ten years we have lost only three members in circumstances which could even in the most expanded sense of that expression be termed mountaineering accidents. With that one truly lamentable exception no one of our losses by death during my own term of office is to be ascribed to any danger or risk inherent in or inseparable from the practice of our noble craft,

while the good old age to which many of our comrades whom we have lost attained would seem distinctly to point to the great advantages to be derived from its continued pursuit, even into the sixth and the seventh decades, under wise and prudent precautions.

Included, however, in our heavy death-roll are no less than twelve veterans of the Old Guard, who at the time of their passing from us had been members of the Club for fifty years or more. Amongst them, I deeply regret to say, were two of the three original members who celebrated with us six years ago the Jubilee of our foundation. Of this distinguished trio Alfred Wills, to be shortly followed by Walters, was the first to cross the Great Divide; the third, Canon Llewellyn Davies, with first ascents of the Dom (1858) and of the Täschhorn (1862) to his credit, is happily still with us. That the evening of a graceful and a tranquil old age may be prolonged to him for many a year to come is the earnest wish of every member of the Club.

The names of Tuckett, that giant of the early days of mountaineering, of Milman, of Gosset, and of Graf Hans von Hallwyl—all elected in 1859—have also disappeared from our list, as have those of A. Dauney and A. Smith Stanier, who were elected in 1860. Edward Whymper (1861), whose name will always form one of the great landmarks in Alpine history, and R. Spence Watson (1862) passed away in 1911 and in 1912 respectively after a membership extending in each case to fifty years. C. G. Heathcote (1863), whose death it is my sad duty to announce to you to-night, and who at one time was Honorary Secretary of the Club, was also a member of fifty years' standing.

Of those who joined our ranks at a somewhat later date we have to mourn the premature loss of Clinton Dent, one of the most versatile of our ex-Presidents, whose familiar figure and genial presence are, and will long continue to be, sorely missed at our re-unions. By his death and that of Alfred Wills, the doyen of the Club, and might one not almost say of mountaineering, we have sustained losses that are irreparable indeed.

Cawood and Cust, two of the famous 'three C's' who took part in the first guideless ascent of the Matterhorn, in many ways an epoch-making feat, have also passed away. Colgrove, the other member of the trio, happily is still able to answer to his name.

In 1912, that fatal year which deprived us not only of two

ex-Presidents, but of two original members of the Club, we lost, in addition to those who have already been mentioned, twelve other members, including the eminent Italian mountaineer Count Francesco Lurani (1892); the Rev. H. A. Morgan (1868), who took part with his great friend Leslie Stephen in the first passages of the Jungfrauoch and of the Viescherjoch; Mr. J. M. Archer Thomson, the leader *par excellence* of the Welsh school of cragsmen; Mr. Tunstall-Moore, that most brilliant mountaineer and excellent all-round sportsman; Mr. Roger Gaskell (1875), an ex-member of the Committee and in his day a magnificent walker; Mr. Hook Thorpe (1888), a well-known Cheshire mountaineer and athlete; and that lofty and noble soul Dr. Edward Adrian Wilson (1905), who, through his heroic death amid the antarctic snows, will ever live in the most cherished annals of the Anglo-Saxon race.

In this year also occurred that tragic catastrophe on the Mont Rouge de Peuteret which deprived this Club of one of the most daring and enthusiastic of its younger members, and the University of Cambridge of one of the most brilliant and remarkable—both in achievement and in promise—of her scientific sons. The hand of destiny indeed pressed heavily on us all when it fell with fatal force on Humphrey Owen Jones.

In the past year (1913) we have lost in all only eight members, but they comprise, in addition to those who have already been mentioned, that very distinguished scientist and most genial and lovable of men, Dr. Tempest Anderson (1893), the venerable Sir Reginald Cust (1884), Mr. W. Maude (1890), and Sir Alfred East, R.A. (1899), who died at the moment when he had attained, but had not yet been actually admitted to, the rank of a full Academician.

We have also lost the oldest of our honorary members, Monsieur Gabriel Loppé (1864), who was elected 'honoris causâ' forty-nine years ago, and who leaves a gap amongst his numerous friends in the Club which must long remain unfilled.

In December 1911 another most distinguished honorary member, Sir Joseph Dalton Hooker, had already passed away full of years and honours at the grand old age of 94. A great leader in the world of thought and science and the most eminent botanist of his generation, he was also the pioneer of scientific exploration in the Sikkim Himalaya and the borderlands of Nepal and Tibet, and a most ardent lover of the mountains wherever they were to be found.

In spite of all these losses, to which it has been painful to have to allude, the Club has maintained, though it has practically not increased, its numbers, which stand to-night at 730. It is, I think, a matter for serious consideration whether some limit (such as, for example, 800) to our numbers might not advantageously be fixed before we actually reach it. That, however, is a matter on which I do not wish now to express any definite opinion, though it seems probable that it may be found advisable to deal with it at no very distant date, when the Club as a body would no doubt be consulted. I will only now express the hope that if such action be taken it will not be thought necessary to effect the object of limiting our numbers by increasing the standard of the mountaineering qualification which is now required for admission to the Club, and which is in my opinion sufficiently severe at present to fulfil the primary object for which it was established.

A most gratifying circumstance has been the acceptance in 1912 by His Majesty the King of the Belgians of the Honorary Membership of the Club. As His Majesty mountaineers under a *nom de montagne* which wild horses shall not wring from me, his very distinguished feats may not be so well known to the mountaineering world at large, and to this Club in particular, as they deserve to be. This, however, I trust that I may say without indiscretion, that had His Majesty been in a less exalted position and had his mountaineering qualification for ordinary membership been submitted to the Committee in the usual course, this qualification was of so ample a character that it would without doubt at once have received the favourable verdict of that body.

It is to be hoped that His Majesty's example will in due course be followed by other European Monarchs, and that Mountaineering, which is a recreation obviously suitable for those who occupy the highest places on this earth, may thus become able to contest with Royal Tennis the proud title of 'the sport of Kings.'

The Honorary Membership of the Club has also been conferred on Professor Coleman, Professor Dr. Karl Diener, and Colonel Godwin Austen.

Professor Coleman, the eminent Professor of Geology in the University of Toronto, made between 1884 and 1908 repeated journeys of exploration in the Rocky Mountains of Canada. He was the first to explore and to map the Mount Robson country and to reduce—in writing—the reputed giants Mount

Brown and Mount Hooker to their real dimensions. He is the author of a valuable work, 'The Canadian Rockies—New and Old Trails'—and was the second President of the Canadian Alpine Club. Professor Dr. Diener is Professor of Palaeontology in the University of Vienna, and President of the Geological Society in that Capital. He is a distinguished author, chiefly on geological subjects, and has travelled extensively in Kumaon and Garwhal (Central Himalaya) under the auspices of the Indian Government and of the Viennese Academy of Science, of which he is a corresponding member. He has also been a most active mountaineer, and was for several years the President of the Austrian Alpine Club.

The name of Colonel Godwin Austen, F.R.S., is a household word amongst those of the earlier Indian explorers—'verbum non amplius.—Austen.'

In September last the Italian and the Swiss Alpine Clubs, each of which was founded in 1863, celebrated, at Turin and at Lucerne, amid scenes of great enthusiasm and *éclat* their respective jubilees.

In the unavoidable absence of the President, this Club was officially represented at Turin by Mr. Eaton, and at Lucerne by Captain Farrar, who respectively conveyed our most hearty congratulations and good wishes on the auspicious occasion to the two Clubs. The extremely cordial reception which was given to these gentlemen bears witness not only to the admirable manner in which each of them performed his pleasant mission, but also to the excellent relations existing between the senior society and her younger sisters. May they long continue!

It is necessary to go back to the year 1895 to find so glorious a season of continuous fine weather as that which favoured mountaineers in 1911; but, on the other hand, during the whole of the summer of 1912 (as was, curiously enough, also the case in 1896) the most abnormally atrocious conditions prevailed, while in 1913, with the exception of a splendid ten days towards the latter half of August, matters were not very much better.

Föhn and warm south winds were constant throughout the summer, producing a phenomenally high but misleading barometer, and conditions of snow which were treacherous and uncertain. In these days, when snowcraft is unfortunately neglected or ill understood by all but the very best guides and the most experienced amateurs, it was due rather to luck than to good leadership that on more than one occasion avalanches,

started by parties who were ill-advisedly traversing snow slopes set at a high angle, did not produce the most deplorable results.

It is impossible to do more than briefly mention some of the more remarkable expeditions made by members of the Club in the glorious season of 1911. First and foremost comes the brilliant campaign of Messrs. H. O. Jones and Geoffrey Young. Beginning in Dauphiné with a traverse, made for the first time, of the Dôme de Neige, the Pic Lory, and Les Écrins, they proceeded to Courmayeur and, thence made the first ascent of the Punta Margherita from the Col des Grandes Jorasses, the first descent of the E. arête of the Grandes Jorasses to the Col des Hirondelles, and the ascent of Mont Blanc from the Col Émile Rey by the Pic Luigi Amedeo and the Brouillard arête. These last three expeditions were all of the first magnitude and of the greatest interest, completing or contributing to, as they did, the solution of Alpine problems of great importance and long pendency.

Finally, accompanied by Mr. R. Todhunter, they made the ascent of the Mer de Glace face of the Aiguille de Grépon direct to the summit of that peak. Josef Knubel led throughout this most strenuous and astounding rock-climb, which, perhaps owing to the fact that it has not been described by its authors as 'verging on the borders of the impossible,' and that the international appetite for competition has thus not been stimulated, no attempt has been made to repeat. Personally, while heartily congratulating Mr. Young's party on their achievement, I will express the hope that it may *not* be repeated, for I believe that at the utmost there are only half a dozen guides in the whole range of the Alps who are possessed of the requisite combination of skill, strength, and endurance to lead on an expedition of such great length and continuous difficulty; it is not a place, moreover, where the risk of bad weather or of an involuntary bivouac can be contemplated with unconcern, at any rate by the friends of a party overtaken by storm or by night on that pitiless rock-face.

In this year also Mont Blanc by the Brenva route, which has been described by a good judge as the finest ice-climb in the Alps, and the traverse of the Nord End from Macugnaga came much into fashion; and each climb was accomplished several times—the former by Messrs. Cæsar, Runge, and Lloyd, and the latter by Messrs. Eaton and Oliver, by Dr. O. K. Williamson, by Mr. Rolleston, and by Messrs. E. A. Broome and Corning. They are both expeditions of the highest order.

though not, I think, especially the former, entirely free from danger.

Dr. Williamson discovered a new and very difficult pass in the Oberland—the Gletscherjoch ; Mr. Stuart Jenkins ascended La Sengla by the N.E. arête ; and Mr. Rolleston, the indefatigable, traversed the Dent Blanche by a new route in combination. He ascended by the Viereselsgrat, and, descending by the Ferpècle arête, was back in Zermatt an hour before midnight chimed—a truly remarkable performance.

Another expedition which deserves special mention was the winter ascent of the Matterhorn on January 31, 1911, by Mr. Charles Meade and the two Josefs, cousins of S. Niklaus. After a most successful and rapid ascent the party were assailed on the summit by a violent and icy gale and had great difficulty in making good their retreat—one of them sustaining severe frost-bite, from which, however, he has now happily recovered. Such are the vicissitudes attendant on winter mountaineering even under the best auspices.

In 1912 the insatiable Mr. Lloyd, profiting by about the only fine day during the season and by his expedition of the year before, descended from Mont Blanc by the Brenva route. The party, which, it is perhaps needless to say, was led by Josef Pollinger, was a very strong one, but although they got down eventually in safety their experiences do not encourage a repetition of the feat. It is worthy to rank with Christian Klucker's descent of the ice wall of the Güssfeldt Sattel some twenty years ago as a 'tour de force' only to be accomplished by an iceman of the most exceptional skill, strength, and daring.

Messrs. Jones and Young made the first ascent of La Pointe Isolée (of the Dames Anglaises) and what was, alas ! destined to be their last climb together. This expedition was primarily undertaken for the purpose of exploring the approach to the Aiguille Blanche de Peuteret by its S.E. arête. It materially aided the solution of this problem and prepared the way for the successful guideless expedition of Messrs. Bonacossa, Preuss, and Carl Prochownick in the following year.

Mr. Broome, our energetic senior Vice-President, climbed the Marmolata Südwand this year for the third time, and made various other good climbs in the Dolomites.

The returns for 1913 have not yet been fully examined, but notwithstanding the unfavourable weather some excellent work was done by our members, amongst which the guideless expeditions made by Count Aldo Bonacossa stand pre-eminently forth. He has made the first ascent of the actual summit

of the Punta Sertori, while those of Monte Confinale by the N. arête, of the Cima della Manzina by the N. face, and of Monte Zebbru by the S.W. face fell to him on three successive days, August 16, 17, and 18, 1913.

To these must be added the first ascents of the Laquinhorn by the E. face, of the Aletschhorn by the W.S.W. face, of the Schienhorn by the E. arête, and last, not least, of the Aiguille Blanche de Peuteret by the S.E. arête. These climbs show that novelty still exists in plenty, if not in profusion, for those who know where to seek it, even in the Alps.

Captain Strutt succeeded, after a desperate piece of slab and crack climbing, in vanquishing, under Josef Pollinger's leadership, the hitherto unconquered E. arête of the Pizzo del Ferro Centrale (Cima della Bondasca). We shall await a full account of this sensational climb with much interest. The 'ice-axe grip' appears to have been freely used by the leader.

The indefatigable Mr. Yeld made several new ascents in his own special domain of the Graians, and Mr. Stuart Jenkins was again to the fore in the Praraye Pennines.

But the most remarkable expeditions of the season have undoubtedly been those of Dr. Guido Mayer under the leadership of Angelo Dibona, a Cortina guide who has come into great prominence of recent years, and who seems to be able to adapt himself to the mixed conditions of rock, ice, and snow on the greater Swiss and French Alps with a facility so unusual amongst his Dolomite-climbing comrades as to awaken reminiscences of the famous Sepp Innerkofler in the heyday of his prime. Dr. Guido Mayer has been good enough to supply the *ALPINE JOURNAL* with more or less detailed accounts of these ascents, which comprise the Dôme de Neige des Écrins by the N.W. face, the Central Peak of the Ailefroide by the N. arête, the Aiguille du Plan by the S.E. arête, and the Dent du Requin by the E.N.E. arête. The ascent of the Écrins from the N.W. is described by Dr. Guido Mayer as exceeding in difficulty the celebrated ascent of the Lalidererwände in the Karwendelgebirge, which were conquered by the brothers Mayer, under Dibona's leadership, in 1911, only after the repeated employment of iron hooks and pegs, and which has hitherto been considered by the Austrian school as the last word in rock-climbing. We cannot withhold our meed of admiration for the daring and skill which alone enable such expeditions to be successfully accomplished, but at the same time the cautious veteran may be pardoned if he suggests that possibly the limit of what is justifiable in the pursuit of a mere sport has now

been reached, if not exceeded, so far as gymnastic rock-climbing is concerned, and if he shakes his head in mild deprecation of any still more desperate feats, if such are to be found, which may be yet in contemplation.

I have left myself little time to do more than mention the extra-European wanderings of our members, of which we may, however, ask with pride, 'Quae regio in terris nostri non plena laboris?'

In the Far East, Captain Corry has made exploring journeys and several new ascents in N.W. Kashmere; Dr. Kellas's travels in Sikkim and Garwhal in 1911 and his fourth Himalayan expedition in 1912; Mr. Charles Meade's two expeditions to Garwhal in 1912 and 1918 and his gallant attempts on Kamet; Dr. and Mrs. Workman's expeditions in 1911 and 1912, and especially their systematic exploration of the great Siachen glacier and the peaks surrounding its head; Captain Todd's exploratory work in the Kagen valley in 1911 and Colonel Bruce's explorations with him in the main chain of the Himalaya between Kashmere and Kumaon—all merit special mention. From Dr. De Filippi's Karakoram expedition which left Europe last July, and which is now in winter quarters at Skardu, the capital of Baltistan, the greatest things are to be expected; no expedition better led or so well equipped and organised has ever visited the Himalayas.

In North America Mr. Carfrae has explored Mount Abbott and the surrounding district; Dr. Longstaff, changing from an Indian to a Canadian sky but preserving his mountaineering spirit, has made an expedition to the Spillimachen mountains between the Columbia and Beaver rivers, and a trip through British Columbia and Alaska down the Yukon River. Dr. Collie and Mr. Mumm have explored the country to the north of the Yellowhead Pass.

Captain Farrar has made a pilgrimage to the north foot of Mount Robson as well as sundry ascents in that region, though his main plans were frustrated by bad weather. Mr. Mumm again visited Canada this summer and made some successful climbs, though his more ambitious plans were also brought to nought by the unfavourable elements.

The Caucasian guideless expedition under Mr. Raeburn's leadership will be fresh in the memories of those of us who attended the November meeting of the Club, when Mr. Ling, his trusty comrade of many years' climbing, read us a most interesting paper. The expedition was conducted in accordance with the best traditions of English guideless mountaineering,

and it is much to be hoped that its very remarkable success will induce Messrs. Raeburn and Ling to revisit the Caucasian chain next summer.

At the General Meetings of the Club we have been privileged to listen to a most interesting series of papers ranging, in addition to the normal records of mountain adventure, travel, and exploration, over such diverse subjects as Alpine Humour, Colour Photography, the Indoor Training of Climbers, Alpine Mysticism and the interpretation of a truncated text from the Apocalypse.

The informal monthly meetings of the Club, instituted through the motherly care of our Honorary Secretary and preceded by an equally informal dinner, continue to be well attended. As far as the dinner is concerned, it might conduce still further to its popularity if a private room could always be secured. This would add slightly to the price—by no means excessive—of the repast, but would, I think, be appreciated and would tend to secure a larger attendance at this preliminary function.

The Annual Exhibitions of Alpine Pictures and Photographs have been, as usual, most successful, and in this regard our most hearty thanks are due to Mr. Spencer (who masquerades on these occasions under the high-sounding appellation of the 'Alpine Picture Exhibition Sub-Committee') and to Mr. Baker for the time and trouble which they have devoted to their arrangement.

This evening and for the remainder of this month a post-humous exhibition of peculiar and unwonted interest hangs upon these walls and bears living testimony to the rare and remarkable talent of our deceased fellow-member—the heroic Edward Adrian Wilson.

The ALPINE JOURNAL, under the able control of its veteran Editor, Mr. Yeld, who is now in the eighteenth year of his reign, and the Assistant Editorship of our late Vice-President, Captain Farrar, fully maintains its well-earned reputation.

Captain Farrar, whose practical experience and knowledge of mountaineering are unsurpassed by those of anyone now living, and whose acquaintance with the last developments of the modern school of rock-climbing, both at home and abroad, is certainly unequalled by any Englishman, devotes an expenditure of time and enthusiasm, to say nothing of other things, to that branch of the editorial work which he has made peculiarly his own, for which we cannot be too

grateful and of which the results are amply apparent. The best thanks of the Club are due, and are, I know, most heartily accorded, to both these gentlemen.

In consequence of the gradually increasing bulk of the biennial volume of the Journal in eight quarterly numbers, it was decided soon after I became President to bind that publication in future in annual volumes of four quarterly numbers. This change has, I think, been generally approved by the Club.

The Journal was once described as the 'Champagne of Alpine Literature,' and it is to be hoped that it has done nothing to forfeit that flattering title. It was, however, discovered by the eagle eye of our indefatigable Honorary Secretary and Treasurer, who is a financier of the first—shall I say in this connexion—*water*, that we had for some time past been supplying this admirable Alpine cuvée (not 'Extra Dry,' I hope) at considerably below the actual cost of production. We have consequently raised the price per quarter bottle—I mean per quarterly number—from 2s. to 3s. 6d. At the same time every care has been taken to maintain to the full the ancient traditions and characteristic features of the Club publication.

Amongst the literary efforts of members of the Club, apart from their contributions to the Journal, may be mentioned Professor Coleman's standard work on 'The Canadian Rocky Mountains,' Dr. Bonney's authoritative and most valuable book 'The Building of the Alps,' and Sir Claud Schuster's 'Peaks and Pleasant Pastures,' a charming little volume of Alpine sketches.

Mr. Bryce's 'South America' will be appreciated as a masterly general sketch of the great continent of the S.W., but even more for its graceful dedication 'to his friends in the Alpine Club' by our eminent ex-President, who has thus shown us that amid affairs of the greatest international moment he was constant in his affections to the Club of which he is so great an ornament.

There are many other things which I should have liked to say, but I have already detained you too long. I have, however, said at any rate enough to show that the Club has in my opinion never during the fifty-seven years of its existence been in a more flourishing and healthy condition. I do not venture to foretell in what precise direction its energies, active and latent, will ultimately develop, but I confidently predict for it a future as vigorous and as successful as has been its past.

There remains one very pleasant duty for me to perform before I resume for a few moments, and for the last time, the Chair which I have occupied at each one of our meetings during the past three years.

Let me first thank my fellow-members—each and every one of them—for the kindness and consideration which they have invariably shown to me personally, and for the constant and invaluable support which they have always been ready to afford me officially. Next let me express my warmest thanks to the Officers of the Club, both past as well as present, who have been ever ready to assist me with their wise counsel and their welcome help.

Of the special debt of gratitude which I owe to our Honorary Secretary, my old friend Charles Wollaston, I find it difficult to speak; fortunate indeed is the President who has such a tower of strength to lean upon for his support, and such a wise guide to direct his footsteps in the right path when they are prone to stray therefrom.

In receiving, three years ago, from my predecessor in this Chair the trust which I am about to relinquish I promised, so far as in me lay, to walk in those traditions which he had himself so fully and firmly maintained, and expressed the earnest hope that when the time came I might in turn hand that trust on, equally unsullied and unimpaired, to my successor.

I have tried at any rate to keep my promise, and if only I may be thought to have achieved, at least to some extent, that hope, my fondest wish has been fulfilled.

SCRAMBLES IN SINAI.

By GEOFFREY E. HOWARD.

(Read before the Alpine Club, June 10, 1913.)

WHEN I tell people I have been to Sinai, I find they divide themselves for the most part into three classes. The first wax dreadfully facetious and ask if I went to look for the Ark; the second make intelligent inquiries about the sacred spots in the Holy Land, where they vaguely suppose every place mentioned in the Bible to be situated; and the third confuse and terrify me with searching scientific questions about the

conformation of the ranges in the Peninsula, the plant life and the technical difficulties—whatever that may precisely mean—of the climbing. Now as a matter of fact I am afraid that I was not drawn to that strange corner of the East by any praiseworthy thirst for an increase of theological or scientific knowledge. I am merely a disorderly person subject to periodical seizures of 'Wanderlust.'

To some mountain travellers it is given to cling in ecstasy like barnacles upon the overhangs of *aiguilles*, while others, steeped in geological or botanical lore, store their gifted intellects with accumulations of accurate scientific data. Alas, I am not of these elect! My head is of an inferior quality; indeed, I am not wholly unafflicted with nerves. My geology consists roughly in the knowledge born of painful experience, that whereas some kinds of rock come off piecemeal in your hands, upon others pieces of your hands come off. Flowers are delicious but strictly anonymous splashes of colour which as I leave timberline cause me to look forward longingly to the off-day—the off-day being to my unenlightened mind much the most attractive part of an expedition.

As I say, I am merely a vague, unprincipled wanderer, and yet I sometimes hope that sheer instinctive love of the mountains may give one some humble claim to be enrolled in the Book of our Tutelary Deity. I am tempted to apply to myself a rather beautiful mixed metaphor which an old member of the Club once heard from the lips of a fervid preacher, at the close of a sermon on Jacob's Ladder. With deep emotion, he exclaimed: 'My friends, even a dead worm such as I can climb that ladder.' Merely to be among the mountains is, even for an ungifted traveller like myself, a joy too deep for words; to wander in the waste places of the earth; to lie in a bag under the stars; to wear unseemly raiment; to stuff strange agglomerations of nourishment between cracked lips, and perhaps above all to enjoy the strange thrill of treading where no one has trodden before. These concomitants of mountain travel combine to form the most glorious of all the joys of life, and somehow the very inspiration of that glory often serves to confirm the feeble knees and strengthen the weak head in a manner which upon subsequent retrospection from an armchair appears almost miraculous.

It was an idea that the Sinai Peninsula would prove a cornucopia of exactly those attractions I have mentioned that caused me to jump at an offer by Mr. R. H. Mackenzie of the Cairo Syndicate of an outfit of camels from their oil-boring

works on the shore of the Gulf of Suez; and when Eaton promised to accompany me I asked no more of Fortune.

One glorious day towards the end of February 1912, we found ourselves rolling and staggering down the Gulf of Suez in a small and somewhat antiquated launch. The following breeze was fresh and the sparkling sea was frisky, and as we settled down upon the deck and lazily watched the picturesque Arab crew grouped in the bows, and the fine-looking, coal-black captain at the wheel we resigned ourselves with the philosophy of true landmen to the prospect of finding a plunge into the small dark cabin for meals beyond our powers of endurance, but comforted each other with mutual assurances that it was excellent practice for camel riding. However, blessed is he who expecteth nothing, for as the day went on, we found we could make several plunges below and absorb several particularly hearty meals, and when evening drew near and we learned that we could not make our landing point that night, but must anchor till dawn, we faced the prospect with unexpected equanimity. As the sun went down, the strange sterile shore blazed with every varying hue of rose and orange, and being within a few hundred yards of the beach we realised the extraordinary barrenness of the wilderness where we were to spend the next three weeks.

With the first glint of dawn we were off again, and rounding the bold bluff of Jebel Hammam were very soon on land, where a kindly welcome awaited us at the oil borings of the Cairo Syndicate. Here we obtained our 'outfit'—six Bedouins, six gaunt, lean camels, and a priceless treasure in the shape of Abdul, an Arab boy with some knowledge of English and, as it proved, a marvellous power of converting the unlikely ingredients into the most succulent dishes at incredibly short notice.

Our Bedouins were true sons of the desert, uncontaminated by any association with civilisation, lean and wiry, in flowing rags and armed with enormously long gas-pipe rifles of vast antiquity, bound with brass rings and ornamented with lumps of turquoise matrix nailed into the short stocks. Their dignity was a thing to marvel at, and their childlike ignorance of all else was only equalled by their astounding knowledge of the Book of Nature. They could read the ground as we read a large type advertisement. To them a human footprint was as identifying as a face, and their knowledge of the haunts and ways of game passed belief.

Starting the same afternoon, we left the coast and turned

up the Wady Taiyibeh, and then into the Wady Homra, where we camped under a cliff. The moon came up and we climbed a low, crumbling hill and gazed on the desolate undulations around us. The complete absence of life of any sort, the perfect silence, the sense of the incongruity of our presence at all, sent us to our sleeping-bags in chastened mood.

To lie-abeds who wish to be cured of their sluggish habits I recommend Sinai; for if your camp is within reach of the early morning sun I will guarantee you will not lie there long after dawn. Certainly we did not; the glare became intolerable a few minutes after sunrise and we were soon moving on. It did not take us long to discover that riding a camel all day was very soporific and made the heat seem unbearable, so we made it a practice whenever we were trekking to walk for at least three or four hours every day. This habit was a source of abiding wonder to the Bedouins. To have a camel and not to ride seemed to them the height of lunacy; but they found our madness very convenient, as we allowed them to ride our growling beasts whenever we went afoot.

After a while we turned North up the Wady Ibn Sakkar, and passed a fine-looking hill, Sarbut el Jemel, on our right. Late in the afternoon we fixed on a camp under a low bank of sand where a few flowering shrubs grew here and there, providing fodder for the camels. We climbed Jebel Abu Ademat in the hope of a shot at an ibex, but beyond several of the largest marmots I have ever seen, we caught sight of nothing.

Next morning the Bedouins showed us some tracks round the camp which they evidently regarded with excitement. After infinite trouble we at last gathered that they were leopards and that one was a well-known man-eater. We felt we were getting our money's worth! Then followed a long day climbing all over Jebel Ibn Sakkar, a long flat-topped mountain with extraordinarily broken sides, scored by a maze of gullies, the sandstone worn into fantastic shapes by the driving sand. Towards evening a lucky running shot at 200 yards brought joy to our hearts and a bountiful supply of fresh ibex meat to the camp. Great was the jubilation of the Bedouins, in whose estimation we immediately rose appreciably. Our camp was always a threefold affair. First our sleeping-bags laid out under a rock on the soft sand, with camel saddles for pillows; next Abdul and the kitchen—a flat iron pot which seemed equally potent for every branch of the culinary art; and lastly, at a little distance, the Bedouins' fire, round which they squatted and chattered half the night.

To-night after supper they began by ones and twos to steal into the little circle of light thrown by our lantern, and after a dignified salute sat down and accepted coffee and tobacco, and partly by signs, partly by drawing in the sand, and partly by the interpretation of Abdul a long conversation took place. After that, this was a nightly proceeding, and we were soon on terms of the greatest friendship with our picturesque companions.

It was very cold that night, with a biting N. wind, the contrast with the fearful heat of the day making it all the more piercing, but we had not come out for luxuries, so we slept in peace.

Every morning Abdul roused us with a cup of tea. This refinement of civilisation in such a place bordered on the ludicrous, but we certainly had no objection to it! I was reminded of a lady of my acquaintance, daughter of one of our oldest members, who once travelled in the same part of the world and who demanded that her early morning tea should be brought into her tent. Her Arab boy, filled with a sense of the gross impropriety of entering a lady's apartment while she was in bed, insisted on keeping his eyes tightly closed in the sacred precincts. The resulting havoc proved an effective 'call,' but the tea usually reached the rudely awakened sleeper in the form of a shower bath!

We spent several days exploring the wild and desolate basin round this camp. This region does not seem to have been visited by white men for very many years, probably not since Sir Henry James made his map, which, with all due respect to that remarkable pioneer, is exceedingly sketchy and inaccurate in this particular section. We found great difficulty in learning the local names of the various mountains and very often were convinced that the Bedouins' guiding principle in answering topographical questions was 'We only do it to oblige, because we know it pleases!' Roughly speaking, however, a sharp peak, Jebel Ras Thal, closes in the N. of the valley, while the long, flat Jebel Ibn Sakkar flanks the E. and Jebel Widmat and a mountain we named Jebel Shajā'at the W. From the top of Jebel Ibn Sakkar one looks down a grand precipice into the cañon-like Wady Wutah and across to the long, flat Jebel Wutah beyond. The maps apparently err here, as they mark the latter range as being to the W. of the Wady of the same name.

After climbing all the peaks within reach of our camp we next moved south across a long stretch of gently undulating

desert, past Hadhbat Suleiman, where are some inscriptions, and camped in the Wady Omarṣat, a gorge surrounded by fine broken crags. Water was of course the first consideration in choosing our camps, but even when we found it, it was often of the filthiest description: stagnant pools bearing the traces of use by many animals. We found a pocket filter invaluable at all times and we put the long rubber tube attached to ours to a very practical use. Sometimes in the narrow granite gullies we came across extraordinarily deep and often almost perfectly cylindrical pot-holes containing water, and into these we would lower the filter and suck the water straight out. These pot-holes were by far the most remarkable I have ever seen: the granite was polished quite smooth, and sometimes the holes, though only a foot or eighteen inches wide, would be six to ten feet deep. When we consider that the annual rainfall seldom exceeds an inch, the length of time required to form these holes simply baffles imagination.

From this camp we explored several of the neighbouring mountains.* These were all sandstone, with precipitous sides affording good climbing and flat tops, several of which had crater-like depressions on the summit. Finally, we made our way over Jebel Dhafari and down Wady Dhafari, a really magnificent gorge, narrowing to a granite gully in the centre. Here, as everywhere else, we found rubber soles absolutely essential. The rocks are naturally bone dry and often exceedingly smooth; our rubber boots enabled us to climb with extraordinary ease and a sense of security I have never previously experienced. Indeed one could walk with comfort on slabs which would have been impracticable with nails, and of course the silence was invaluable in stalking game. A scramble up Jebel Ras Dhafari rewarded us with a very fine view of the S., where Jebel Serbal towered above its smaller neighbours and whetted our appetites for the following week. I was particularly impressed by the curious appearance of the ranges from this point. The Wadies or valleys to the S. were fairly broad and perfectly flat; from these flat surfaces the mountains sprang sheerly, brown, pink and red pyramids and ridges placed as it were on a flat white table of sand. That day we lost each other, and when Eaton rejoined me in camp,

* None of the mountains either here or round our previous base showed evidence in the shape of cairns of previous ascents by Europeans, but they are no doubt fairly frequently climbed by hunting Bedouins.



Suway Electric Engineering Co. Ltd.

Camels resting.

F. C. Howard, photo.

which had meanwhile been shifted to the Wady Shellal, it was dark and he was glad of the beacon light of a lantern which I had set out in the middle of the broad valley to guide him.

At first we were puzzled at the meticulous care with which we were never allowed to move without a Bedouin shakari at our heels; but we presently learned that the Sheik in command of our party was personally answerable for our safety, and woe betide him if anything befell us. We were also considerably amused by our companions' evident anxiety as to our climbing capabilities. Every now and then we would come to a pitch which would be pronounced 'Good for Arab; not good for English!' Then Eaton would stoutly murmur that the prestige of the white man must be maintained, and up we would go, though it may be not with the catlike agility of our barefooted cicerones, who would nevertheless nod grave approval and mutter 'Quaiss' to our gratification. It was quaint to watch our two familiars at the noonday halt absorbing their tobacco. Through the stock of their guns they have a hole bored, and into one end they stuff the weed; then holding the stock to their lips they suck the smoke through and pass the gun back and forth to each other. These must, I should think, be the largest and heaviest pipes in the world!

Next morning we climbed an imposing-looking mountain to the N.E. which was apparently nameless, so we christened it Jebel Iizabat, and then rejoining the camels farther on pursued our hot and dusty way along a fairly frequented caravan track which is the main route from Suez to Jebel Musa. Here as everywhere we constantly caught sight of stray camels, generally with young ones at foot. They are turned loose for considerable periods and picked up again by their owners when wanted. It was very startling at first suddenly to come round a corner and find oneself face to face with two or three equally astonished ships of the desert, who snarled at us and ambled off in pained surprise.

A long trek over a curious pass (Nakb el Buderah) brought us into the Wady Magharah, which abounds in hairpin turns and is hemmed in by fine crags 500 or 600 feet high. Here are the famous old turquoise mines of the Pharaohs, but, alas! a scramble up to them showed that the Arabs have recently blasted away the hieroglyphics which used to adorn them. A prolonged search was rewarded by the discovery of a few rough and valueless stones. A long afternoon's ride up the Wady Mukatteb failed to bring us to water, but at sunset we

unlimbered opposite Jebel Mukatteb, on which we turned our backs to gaze with interest at a grand peak opposite forming part of the Genaiyeh range, where must also be the points named Atairtir ed D'hanie and Jebel Meilihah on the map. These names, however, the Bedouins stoutly declared to be non-existent.* Resolving to climb the peak on our return, we snuggled into our bags after supping off a hare which one of the Bedouins had caught by the simple but exertive process of running it down!

Next day we determined to reach Jebel Serbal, and a very tedious process it proved to be. An hour's march brought us into the bottom of the Wady Feiran, and all day we turned and wound, expecting that each corner would prove the last. The fact that the Bedouins have no expressions for any sub-divisions of time smaller than half a day and none at all for distance made it, as we knew from experience, a totally futile procedure to inquire how far it was or how long it would take. Still, though there was no question as to our long lane having a turning, for it had some dozens, we knew it must also have an end, and at last in the afternoon a sharp bend to the right brought us face to face with the magnificent pile of Serbal, and a few yards farther on our eyes, so long accustomed to absolute sterility, were feasting on the sight of a running stream—the only one in the Peninsula—and green grass. What a sight, too, it was to see men and beasts rush to the clear, pure water and absorb it like so many sponges! Soon we were in the heart of the famous oasis; thousands of palm trees, little squares of green wheat, and numbers of curious, tumble-down stone dwellings, inhabited during the date harvest, and here and there a human figure looking strange and unreal after our ten days of rock and sand and loneliness. Every palm here has its owner whose rights are scrupulously respected. Often a family will own one, which is passed down as an heirloom, and here every year two or three thousand nomads gather from all over the Peninsula to harvest their dates.

We thought it would be delightful to bivouac by a bubbling stream among the trees, but after all the desert has its advantages. Mosquitoes, centipedes, and everything that creepeth upon the earth welcomed us jubilantly, and even our ardour for a long and necessarily delayed bath was entirely

* James' map appears to be somewhat confused here. On subsequently climbing this prominent mountain we gave it a definite name to distinguish it from its less imposing neighbours in what is locally termed the Genaiyeh range. *Vide p. 25.*

damped by the groans of Abdul, who started to set us a good example, but soon came hopping back with a nasty bite on his foot from a tarantula. The application of much ammonia assuaged the pain, but for days his foot was badly swollen and extremely uncomfortable.

Our escort had talked much of a 'Holy Man' who lived in this place, and after settling our quarters for the night we strolled up in the sunset to a walled enclosure entered by an arched gateway. Above the arch was a simple stone cross which looked strangely homelike in this Mohammedan wilderness. Repeated knockings brought a grave Arab youth who admitted us. Within was a veritable paradise of green things, lemon trees in abundance, wheat and vegetables, besides many shapely cypresses. Our conductor led us to the centre of the enclosure, where was a simple stone, one-roomed house, and in front of it under a thick trellis of vines sat a remarkable figure robed in a thick black cassock with a black biretta on his head. Long, unkempt locks framed his shrunken face and an enormous hooked nose seemed to dominate every other feature. He received us with every mark of courtesy, but conversation was a difficulty. Our Arabic was limited to a few phrases connected with climbing, hunting and eating, and our modern Greek—which we gathered was his native tongue—to 'Good-night.' He regaled us with cups of the superbest cognac I have ever tasted, but it is not a beverage I recommend on a very empty inside when the temperature is over 100°! However, we bowed profoundly many times, gave tobacco to the four or five Bedouins who were standing round, and retired as gracefully as we could.

This veritable hermit has lived here for twenty-six years and grows vegetables for the convent at Jebel Musa. Next morning, after an extremely uncomfortable night spent in the uproarious company of at least a million creeping, crawling and buzzing little hosts, we were roused by the appearance of our venerable friend, come to return our visit. Somewhat abashed, we hurriedly crawled out of our bags and bowed ecstatically, making such cooing sounds as we felt were most likely to convey an impression of delighted welcome. He had not come empty-handed, for he presented us with several fine lemons which we were uncommonly pleased to have. After a hasty consultation we pressed upon him a slab of chocolate which he regarded with doubtful satisfaction, and a pair of scissors to cut his hair; this called forth a beaming smile; then inspiration seized me and I routed out a tin of

Keating's powder, the use of which I explained in pantomime. Seldom have I seen a face so illumined with the radiance of grateful joy as was that ancient man's. I am not surprised either; we reckoned he must be a good deal troubled that way.

The evening before, we had arranged for a local Bedouin to come with us up Jebel Serbal, as we learned that this was etiquette. He had intimated that we must start before dawn and that it would take us twenty-four hours to make the journey up and down. Eaton had thereupon regarded the mountain with some attention and hazarded a guess of four hours up and three down. Personally I inclined to four and a half up, but anyhow we flatly refused to start before 8. At that hour then we set out, past a low hill on which are still visible the ruins of an ancient monastery and a higher one which is the traditional and indeed probable site from which Moses watched the battle with the Amalekites while Aaron and Hur sustained his hands in prayer.

I will leave to other and more scholarly pens the discussion of whether Jebel Serbal or Jebel Musa is the actual Mount Sinai of Exodus. The evidence certainly seems to point to the former, and topographically it answers the description to a remarkable degree. It is impossible to conceive a more fitting theatre for the tremendous drama of which Holy Scripture gives us so vivid an account. Jebel Serbal is truly a magnificent and awe-inspiring mountain. Huge buttresses and pinnacles in serried array form a mass of unsurpassed grandeur. As we made our way up the stony Wady Aleyat, Eaton was constantly impressed by the resemblance to the Chamonix Aiguilles, while I could not help marking a startling likeness to Montserrat in Spain—a likeness which became constantly intensified during the day.

Passing several very curious and interesting inscriptions and primitive drawings of men and animals cut upon a smooth black stone, we crossed the valley and began to climb a steep couloir shut in by tremendous granite buttresses which gradually closed in towards the top. To our surprise and delight a sound of running water reached us about a third of the way up. Eaton first thought it was a delusion of parched toilers, but there, sure enough, from under a large block, issued a tiny trickle of ice-cold water. A halt was naturally called, and we lay and laved our heated heads and arms and wondered whether Moses had refreshed himself at this very pool 3500 years ago.

Though steep, the couloir is never a matter for more than an occasional use of the hands, but it was back-aching work and

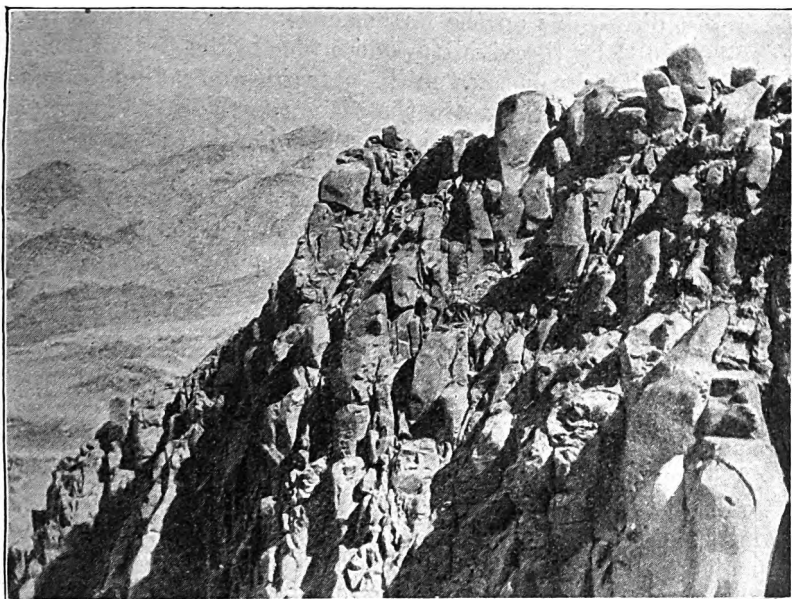


Swan Electric Engraving Co. Ltd.

Yakob. L. L. L.

J. C. C. Eaton, photo.

we were glad to get to the top. Here we found a patch of snow perhaps a foot square. It seemed strangely out of place, but I suppose during the short rains of December or January a certain amount of snow must most years be formed at this height. It was on arrival at the top of the couloir that I was chiefly reminded of Montserrat. We found ourselves in a huge basin surrounded by curious smooth granite pyramids of



BUTTRESS OF JEBEL SERBAL.

strange shapes. Here and there stunted shrubs grew in cracks of the rock and flowers also were moderately plentiful. Turning to the left we rapidly mounted steep and very smooth slabs to the highest point, which consists of a huge mass of smooth granite topped by a great square block. Extraordinarily interesting specimens of granite erosion attracted our attention near the summit. It seems unlikely that the very small amount of water precipitated in this region can be responsible for the phenomenon which is perhaps caused by the prevalent N. wind driving sand against the rock.*

* Of the penetrating power of sand we subsequently saw curious instances in the shape of bottles near the oil boring works. The small particles had been driven deep into the hard glass.

What a marvellous view we had that day! To the N. stretched the wild jumble of crags, small ranges, patches of desert and winding valleys among which we had been wandering. Far away, across line after line of low peaks to the E., the gulf of Akaba shimmered faintly, with a hazy line of hills beyond in Arabia itself. Southward towered the Jebel Musa and Katerina group, while to the W. stretched the flat desert between us and the shore, with the palm trees of Tor just discernible on the farther edge. Above all was the eye delighted by the vivid turquoise blue of the Gulf of Suez, brilliant in its translucence on the near side and fading into an exquisite opalescent haze in the distance, where the graceful outlines of the grand African peaks rose in faintest pearl-grey silhouette.

The absence of vegetation on the lower and of snow on the higher slopes of the vast panorama of mountains on three sides of us gave an unobstructed view of the diverse geological formation. Great bands of red, pink or brown scored the prevailing grey-white and ran straight over range after range like Brobdingnagian switchbacks till they were lost in the distance. Everything seemed dead, parched, mummified. Even the impression of chaotic sterility conveyed by the savage panoramas in the Sierra Nevada paled before this.

We smiled at our guide's prophecies and at our own when we found that we had taken just $4\frac{1}{2}$ hours to the top (7700 ft.), and spent several hours basking on the hot granite and bemoaning a catastrophe to one of Eaton's boots of which the rubber sole was rapidly parting company with the upper. A leisurely descent brought us to camp in $3\frac{1}{2}$ hours. After all it may be that the guide's idea of time would be justified if one tried any route but that by the couloir. I fancy it would test the skill of the most daring cragsman to make an ascent by any other way, the extraordinary angle and the phenomenal smoothness of the rock in most places looking, to say the least of it, fairly formidable.

Of course the Mecca of travellers to Sinai is the convent of Jebel Musa, and we had ourselves intended to go there, but the fascinations of exploring new ground in the N. had taken so much time that we had decided to forego what must be a very interesting experience for the more appealing joys of climbing. Consequently, we now had to retrace our steps, promising ourselves, however, some good scrambling *en route*. Arriving back in the Wady Mukatteb we started at dawn one morning for the noble red massif which towers to the E.,

and which had attracted our attention on the outward journey.

A stiff scramble up a steep sandstone couloir of a couple of thousand feet provided the chief interest of the climb. Eaton had been obliged to fall back upon a pair of nailed boots, which he found rather troublesome on some of the steeper slabs. We had some difficulty in deciding which of several was the highest summit. The most obvious one was crowned with a huge boulder up which we crawled, only to see that another rather to the E. was a few feet higher still. On the latter we built a cairn, naming the peak *Jebel Tair Azrak*. As is so often the case here, the top consisted of a flat plateau of some acres' extent from which sprang the actual summits. It is a magnificent view point, and we spent a glorious hour studying the blazing landscape.

Following the dry bed of a watercourse on the plateau for a few hundred yards we came upon one of the smoothest and narrowest potholes we had met with, containing good water to within a foot of the surface. Here the filter came in useful and we had a most refreshing drink. We struck down a very steep gully to the N.W., the left side affording safe climbing, and ultimately reached the old turquoise mines whither the camels and baggage had meanwhile moved.

I remember we had a great feast that night, lying at the foot of a beetling cliff opposite the tomb of some local saint, a rough round stone erection through the unglazed windows of which one could see a sheet covering what gave the impression of being a body, but this of course we could not investigate. The Bedouins had collected various desert roots for our delectation: wild asparagus which was tasteless but soft and edible, and a curious gnarled root from which the outer husk is removed, leaving a clear white core with a pleasant taste, faintly resembling a coconut. We suffered a good deal from driving sand that night and were looking our grimmest when awakened next morning by the appearance of two shaved and immaculate Englishmen—a very practical proof that we were on the main highroad again. These proved to be Mr. Arthur Sutton of Reading and Dr. McKinnon of Damascus, who were making the round trip from Cairo to the Monastery and back *via* Tor and the Khedivial steamer. We had a pleasant chat with these gentlemen, who most generously offered us stores and comforts from their many and well-laden camels, but our foraging Bedouins and our iron cooking grate were all-sufficient for our simple needs and we gratefully

declined. I have been unable, on subsequently meeting Mr. Sutton, to resist the temptation of giving away his very imposing-looking dragoman, who, after we had bade a cordial goodbye to his Effendim, slyly crept back and asked us for the love of Heaven to tell him his whereabouts as he was hopelessly at sea !

But time was getting short as we had to catch our launch which connected with the mailboats, and long forced marches were necessary. After many windings we finally emerged on El Markha, a flat stretch of desert between the mountains and the sea, and pitched camp alongside a pleasant fellow-wanderer who was surveying the coast and who regaled us with much tepid mineral water and his very excellent company. We declined his offer of a tent and stretched ourselves luxuriously upon the shingle after several of the most grateful and comforting bathes I ever hope to enjoy.

One short day's march along the shore, past Ras Abu Zenimeh, a large and much venerated tomb—which Eaton entered, while I contented myself with a peep through the windows, not feeling moved to take off my boots and endure the accompanying tedium of unwinding and rewinding puttees—brought us back once more to our starting point, Jebel Tanka, the scene of the oil-borings. Here our kind friends Messrs. Growder and Hoops, who are in charge of the works, met us with the disturbing news that the launch had not yet appeared, and in view of the heavy N. wind would probably take fifty hours to make Suez again when she did.

However, there was nothing to be done, so we contented ourselves with taking impossible pot shots at schools of propoises and with rowing round a small sailing craft at anchor off the shore containing two hasheesh smugglers who had been caught in the act, and who were now awaiting an escort to the Suez gaol. At first we wondered why they did not up sail and away, but it was soon explained that Soudanese police were lying on the cliffs above ready to fire on them at the first suspicious movement. Never have I seen two finer specimens of the stage villain: half-breed Greeks, their terrific moustachios, slouch hats and gay rags were positively operatic in their suggestiveness. They seemed to regard their position with perfect philosophy and exchanged friendly greetings and offered advice regarding our abortive efforts to catch some fish for supper.

Though we did not know it at the time, that evening was to be our last chance of enjoying the wonder and delight of a

Sinaitic sunset. At every hour of the day the mountains change their colour, but in the evening they change every minute. From grey-white to pink and from pink through every gradation of delicate rose to deepest crimson. Then in a few moments the sun is gone and a pearly opalescence spreads over everything, till you are suddenly aware that it is night and a million stars are blazing overhead.

Next morning—no launch; but we rubbed our eyes—a steamer of some size was lying near the shore. We tumbled into our clothes and ran to the mess room. Here were two strangers, one a big bluff British sea-captain, the other a froglike creature, part French, part Italian, part several other forebears, in ochre button boots. He was a prospector of some kind who had just reached the coast and was frantically bargaining for a passage to Suez on the unexpected tramp steamer. The captain fixed a merry eye on the ochre button boots and persistently replied to everything with a curt ‘Suez! Ten pounds.’ We naturally took a pretty vivid personal interest in the matter, and when at last the ten pounds were handed over we mutually and sorrowfully shook our heads and murmured ‘Too much.’ However, I thought that as the matter really was urgent I would just try my luck. Drawing the captain aside I asked ‘How much did you say to Suez?’ He slowly closed one eye. ‘You’re English, aren’t you? Got any button boots about you? No? Good. Say a sovereign and grub thrown in!’

Here was luck indeed, and a frantic half hour followed, packing our baggage.—Saying farewell to our trusty escort and our kind hosts, we tumbled into a dinghy and accomplished the delicate operation of scrambling up a rope on to the steamer’s deck, no easy task in a heavy sea. Seated at ease on the bridge and listening to the racy yarns of genial Captain Edmanson we found the voyage to Suez all too short, and many a regretful glance we threw at the desolate shore on our right where we had spent such a delightful holiday. True, we had not accomplished great things; a little climbing, a great deal of scrambling, a little shooting, a little new ground covered and a little information acquired for the makers of maps; but for the man who loves the wild places of the earth and the primitive in mankind, who loves the sun and regards luxuries as superfluities and who possesses several pairs of rubber-soled boots and a perfect companion, I can recommend that strange corner of the East as a playground he will love and long to revisit.

THE NORTH-WEST RIDGE OF THE OBER GABELHORN.

BY RAYMOND BICKNELL.

And he that stands upon a slippery place
 Makes nice of no vile hold to stay him up.

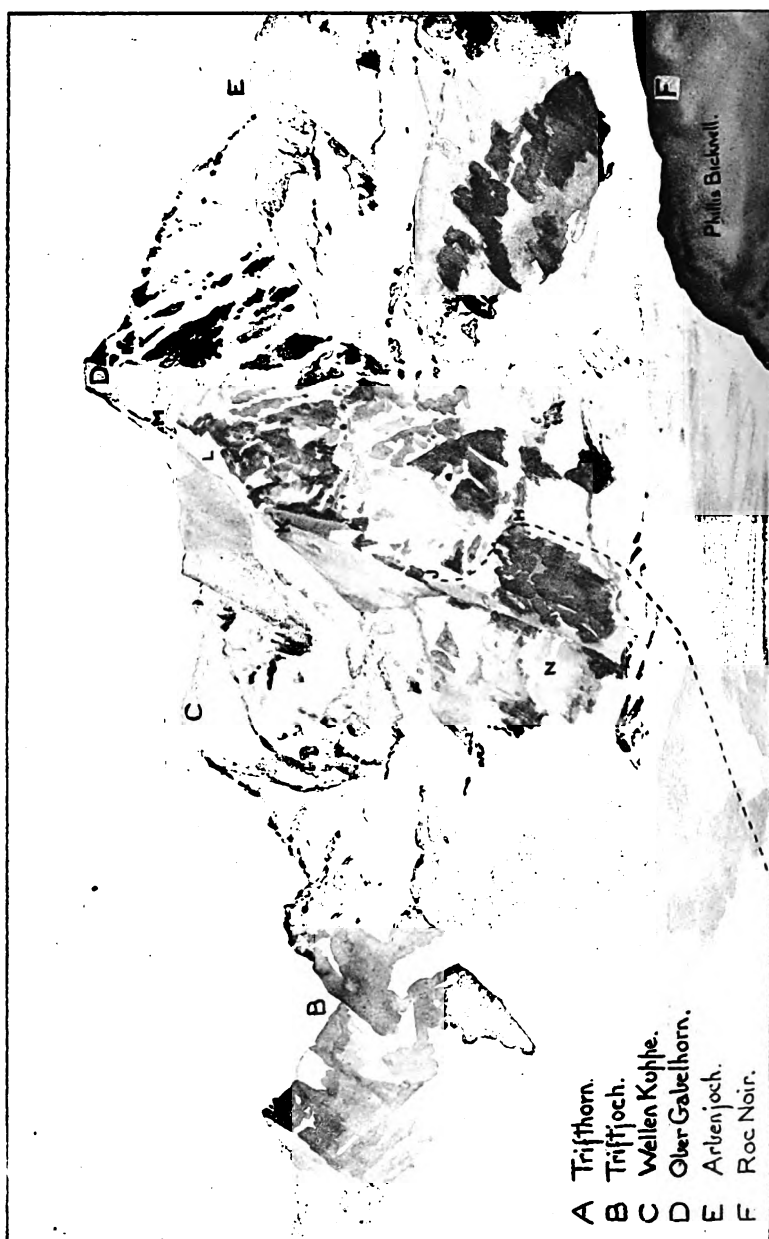
KING JOHN.

ASSUMING that the makers of indices have let nothing escape them, I believe that our Journal has, since its birth in 1865, contained no less than fourteen descriptions of ascents of the Ober Gabelhorn by nearly as many varying routes, and it is a remarkable fact that not one of these refers to the direct ascent of the N.W. ridge.*

In the middle of last August, I found myself most unexpectedly at Zinal, summoned by my friend Claude Elliott, that we might make an attempt on some high peak in the few days which remained to me before my return home. I arrived with the vaguest ideas as to the geography of the valley, and with no knowledge of the peaks which surround it. Elliott's announcement that we were going to have a look at the Ober Gabelhorn was therefore received without any particular enthusiasm, and before long he thought it necessary to work upon my feelings by casually letting drop the remark that the mountain had not been climbed from Zinal that year.

We had intended to meet in the Oberland, and were therefore not provided with the Climbers' guide for the district, nor had we made that study of the writings of our predecessors which so often helps towards success in guideless climbing. Our only sources of information were Abraham's 'Swiss Mountain Climbs' and Ball's 'Alpine Guide.' Anyone who consults these works as to the ascent of the Zinal side of the Ober Gabelhorn will find little to encourage him. The first advises him that he may expect 'a prodigious amount of step cutting' and an ice bulge which will give him trouble. It is assumed that if he gets up he will be glad to go down the other side. The two lines which the second devotes to the subject may leave him with the impression that he had better not try to get up.

* A note describing the first ascent from the Zinal side, found amongst the papers of Lord F. Douglas after his death, and printed in the *Alpine Journal*, vol. ii. p. 221, is a possible exception, but it contains no clear details as to what route was taken.



Juan Electric Engraving Co. Ltd.



Swiss Electric Engraving Co. Ltd.

The Ober-Sabelhorn, from the Bouquetin.

C. W. Nettleton, photo.

These are the reasons why we put off the consideration of detailed plans till the next evening, when we sat outside the Mountet Hotel and looked our peak in the face. After a week of stormy weather we were blessed with a cloudless sky and a steady north wind, which gave almost certain promise of a fine morrow. It was probable, however, that there was a great quantity of fresh snow on the mountain, and in looking for a route our chief consideration was to find one which would not be exposed to avalanches. For this reason the sky-line ridges to right and left, rising from the Mont Durand and the Wellenkuppe were rejected, as neither could be reached without long journeys below steep snow slopes. Face routes were not to be thought of, and we were left with the N.W. ridge which was immediately in front of us.

Near the foot of the mountain this ridge is lost in a face of smooth granite, which rises out of the Glacier Durand, but above this it begins to take shape and soon forms a clearly marked crest running right up to the top. From the Mountet it looks immensely steep, but we took an optimistic view as to the deceptiveness of its appearance and decided that it might serve as our path. Once on the crest, we should at any rate be free from the fear of avalanches. Near the top the ice bulge was clearly to be seen, and just above it an open schrund running right across the north side of the peak; but both were so far away that it was impossible to judge their powers of obstruction.

At three o'clock the next morning we were crossing the glacier in brilliant moonlight and intense cold. The rock face looked no less smooth as we approached it, and leaving it on our left we went up the snow bay immediately to its west and at 4.30 landed on the rocks (H). Here we turned to the left, and climbing over snow and rock patches reached the ridge above the top of the snow face (J). From this point we saw for the first time that a large party from the Mountet hut were coming up behind us, and it was some satisfaction to know that we had chosen the route used by the local guides, for though they had got on to the mountain further to the west, they were traversing across to our line of ascent.

We were now on hard ice, with occasional patches of smooth rock slabs. The ice was covered with loose powdery snow and the slabs barely protruded above its surface. We made use of the slabs wherever possible but though we got some help from them we came in for the very hardest of the ice in the intervening spaces, and we should probably have gone as

fast on the open slope to our left. Above this section the ridge is cut by a steep band of rock which runs far out along the face to the east (K.) That part of the rocks which was straight above us did not look very promising, and we considered a traverse on the ice right round the band to our left, but upon the principle of keeping as closely as possible to the ridge and avoiding all unnecessary excursions on to the face, we decided to try a direct attack first. At eight o'clock, after half an hour of vigorous work, with much scraping and cutting at the ice-covered rocks, we had reached their top. My mind was not entirely free from anxiety as to how we were going to get down them again, and my eyes wandered furtively from side to side in search of something which would serve as a hitch for a doubled rope. Our trouble had been caused by the extreme cold, rather than the difficulty of the rock face, for at the height which we had now reached the north wind and clear sky had produced an almost arctic temperature.

Looking down from this point we were interested to see that the party below us had chosen the other course, and were already traversing the face some distance to our east.

Here was the end of all rocks, and there was nothing above us but ice and snow. We put on crampons and for a time walked upwards with much satisfaction to ourselves. But the slope became steeper and the covering of snow thicker, and satisfaction gave place to a conviction that this was no place for implements whose use we had not mastered; and that for us the only safe progress was by step cutting. Elliott kept his on for the rest of the day and thought that they were useful, though he showed no great inclination to do without steps. As for me, I preferred to rely upon methods which I understood, and my crampons returned to my rucksack. Just above us was the hardest piece of the day's work. The snow was about nine inches deep and made no pretence to being attached in any way to the hard ice below. It was necessary to make a large clearing for each step, and any effort to save time in the direction of insufficient preliminary sweeping merely resulted in the total disappearance of the step before it was half finished. Little enough was said at the time, but afterwards we confessed to each other that this was the one part of the day when our spirits were depressed by the expectation of failure, for it was clear that if there should be no improvement higher up we had about three days' work between us and the top. An hour later our spirits were soaring to undue heights, for on a steep and narrow ridge (L),

which had appeared from the Mountet to be the crisis of the climb and its possible end, we found ourselves kicking secure steps in ideal snow. Our tongues were unloosed and there was talk of being on the top at eleven o'clock.

Then we met with an unpleasant surprise. Invisible from below, its presence wholly unsuspected till this moment, there lay before us an almost horizontal section of the ridge. It must be a narrow place at the best, but now, by some freak of the north wind, its crest from end to end was piled up into an extraordinary snow wall, some eighteen inches thick, with almost vertical sides from three to four feet high. The whole structure was so frail that it offered no sort of foothold, and every inch of it had to be removed before we could pass along the ridge. This was most readily done by thrusting one knee forward into the snow and then with leg and arms splitting the wall and pushing it over to right and left. At first the sight and sound of great slices of snow sliding and hissing down the steep slopes on both sides at once was somewhat disconcerting to the nerves, but it was soon realized that a perfectly firm footing could be trampled in sound snow beneath, and slow but steady progress was made. Still it was a place in which we did not care to move together and we went one at a time, the other sitting astride the ridge with the rope passing round his axe. We derived some consolation for the delay in the thought that had the ridge been corniced it would have turned us back, for we should not have ventured on the slope on either side, where the deep snow covering seemed ready to go down at any moment. In the heat of the fight, while we were kicking and trampling the ridge into subjection, something had been said about it being 400 yards long. Looking back upon it dispassionately from above, when it had been reduced to a smooth path ready for our return, we agreed that 200 yards would do it justice. For all that we had been more than an hour in getting across.

During the crossing we had ample opportunities of observing the ice bulge (M), which was just ahead of us. It was a very respectable bulge, some twenty feet high, and bulging in a thoroughly uncompromising manner. We were, however, able to regard it with complete indifference, for if the ridge on which we stood was giving us trouble, it was at least doing something to help us in that it was so built up with snow that it formed a gracefully curving path straight to the top of the obstruction in front of us. A short and gentle slope, the one entirely easy piece on the upper part of the mountain, led up

to the schrund, which we had seen the evening before. It was almost full of drifted snow, and could do nothing more than delay us for five minutes while we beat down the soft bank which formed its upper side.

Success was now assured and only a matter of time, for though the final slope was both steep and hard, the wind had swept it bare, and with no further possibility of avalanches we were able to leave the ridge, which was here for the first time heavily corniced, and cut our way up the face to our right.* The top was an almost level snow ridge running at right angles to the direction from which we approached it. It looked innocent enough, but there were obvious possibilities of a cornice on the other side, and it was therefore a relief to see one minute patch of rock protruding through the snow. At one o'clock we were standing on this patch, just ten hours after leaving the Mountet. During that time the total of our halts had not amounted to more than half an hour.

Our suspicious attitude towards the highest point was fully justified. Some 30 yards to our east, with its top perhaps 10 feet above us, an enormous cornice hung far out over the south face.

For the sudden appearance of a great view the ascent of this side of the Gabelhorn would be difficult to equal. As we had climbed up there had slowly appeared on our left the Dom and the Täschhorn, and on our right the Dent d'Hérens. Of all that lies between these we saw nothing till we put our heads over the very top and were able to look across at the marvellous view of the Matterhorn at close quarters, backed up by the whole of the Monte Rosa group.

We allowed ourselves only ten minutes' rest, for there was every prospect of a slow and troublesome return journey on the lower slopes and a very strong reason for wishing to be back at Zinal that night. In spite of eight hours of cloudless sky and brilliant sunshine the temperature was still so low on this shaded side that, if the head of an ice axe was withdrawn from the snow and touched with the bare hand, the skin stuck to the iron. Consequently our steps remained in good con-

* See *Alpine Journal*, vol. xxiv. p. 367, for a photograph described as the N.W. face with the Wellenkuppe ridge to the left and the N.W. ridge to the right. The upper part of the narrow snow ridge is at the right-hand edge of the picture, immediately below the ice bulge, above which the face on which our climb was finished is just visible beyond the corniced ridge.

dition and we made rapid progress at first. The narrow ridge no longer had any terrors for us, and we walked down it, slowly, it is true, but moving together. Then, after spending twenty minutes over a meal, we went on down the steepest part of the ice slope. Here our steps were completely filled up with snow, but they were still good and needed nothing more than careful clearing. Yet it was not a place for hurried movement. Has any mountaineer ever come down a steep ice staircase, which he himself has made on the upward journey, without secretly wishing that he had cut the steps just a little nearer together; or has he quite lived down the ever-recurring feeling of disappointment at the obstinate way in which even the most sharply pointed axe refuses to take any satisfactory hold upon the ice at his side?

At the level of the rock-band the sun had begun to take effect, and as we climbed down the warm rocks we were able to laugh at the fears which they had inspired in the morning. Then we entered upon the region of slab patches and thinly covered ice. Here the sun had got a thorough hold. Hardly a sign of our steps remained, and not one could be used before it was carefully re-cut. Cutting downwards for any length of time cannot but be uncomfortable work, even for the toughest of guides. To the amateur, who is called upon for such an effort at rare intervals, it is something much worse. We made constant efforts to avoid it, but without any great success. We worked both to right and to left in search of better going. Sometimes we found a streak of thicker snow, where it was possible to descend for a few feet with face turned to the slope and toes kicking steps; the one of us moving down while the other watched the rope. Often, when we came within reach of an island of slabs, we took to it eagerly; yet I doubt whether we left one of these islands without a feeling of relief at getting on to the ice again. Once we traversed out to the east in the hope of finding better snow where the slope was entirely free from rocks, but before many minutes we were glad to be cutting a way back to our original line. The downward view was the strongest of inducements to leave nothing to chance and we found few places where it seemed wise to move without cutting through the wet snow into the ice below. Our difficulties did not come to an end till 6 o'clock, when we had reached the easy rocks. The descent from the foot of the rock-band, a distance of about 1000 feet, had needed three hours of steady work. The last memory of the climb is of ease and luxury, for after leaving the rocks for the snow bay

we were able to glissade down to the bergschrund with perfect confidence in stopping before we reached it.

On arriving at the Mountet soon after seven we heard that some of the party whom we had seen in the morning had met with an accident. They had been climbing on two ropes, four on the one and three on the other. A few minutes after we had lost sight of them, while they were still traversing along the face under the rock-band (K), some snow had fallen upon the party of three, a guide and two amateurs, and dislodging them from their steps, had swept them down the slope. For a time they had been able to retain their axes, and twice they had almost stopped, but as the pace increased their axes had been jerked from their hands, and they could do nothing more to save themselves. At the foot of the great ice slope down which they fell, they had gone over two vertical ice walls, the one about twenty feet and the other about forty feet high. Then, by a wonderful piece of good fortune, they had fallen on to a gently sloping shelf of soft snow (N), where they had stopped just above another ice wall fully a hundred feet high. One of the party was able to free himself from the snow and dig out his partially buried companions. Looking across from the Mountet, I thought that the total distance through which they had descended was at the very least 1500 feet, and it was almost impossible to believe that any human beings could have survived such a fall. The two amateurs escaped with surprisingly slight injuries. One of them was able to walk down to Zinal that same evening, and the other did so the next day. The guide did not come off so lightly, but his worst injuries were two broken ribs. They owed their escape to their own coolness in making good use of their axes to check their fall, to the covering of soft dry snow through which they passed, and to the fact that there were no rocks protruding through the ice.

All this had been hidden from us, for at the time we had been on the opposite side of the ridge and we had assumed that the whole party had given up the climb and turned back. We were greatly distressed to think that we had gone on in ignorance that our friends were so badly in need of help, but were glad to be assured that we could not have reached them so soon as a strong party who had seen the accident from the Mountet and immediately hurried to their assistance.

THE ASCENT OF MT. ROBSON.*

By CONRAD KAIN.

ON July 31, 1913, Messrs. W. W. Foster, Deputy Minister for Public Works for B.C., Mr. A. H. MacCarthy of Wilmer, B.C., and I left our bivouac at the foot of the Extinguisher and followed the route to Mt. Resplendent up the glacier almost to Resplendent Col.

A ridge of rock comes down from the Dome right to the level glacier, and I think this ridge would be the best means of ascent. But my idea then was that it would be better to go farther up on the glacier and traverse to the right through the crevasses and over some rocks to the Dome.

From the Dome to the bergschrund is just a walk; but the bergschrund itself was more difficult than it looked. The upper lip is almost overhanging. We tried to cross where the rock ridge comes down close to the bergschrund, but

without success. If you could reach these rocks, you would save much time. We traversed to the right, and got across the bergschrund by cutting steps up a very steep bridge.

Then I cut 105 steps on a slope of sixty-five degrees up to the little rocks shown in the picture. From there we went



CONRAD KAIN, OF NASSWALD, BAXALPE, NOW IN THE EMPLOY OF THE ALPINE CLUB OF CANADA.

* Cf. Mr. A. O. Wheeler's map, *A.J.* xxvi. 404.

over rocks and ice with some step-cutting and some pieces of rather difficult climbing over glazed rocks, till we reached the Shoulder [S.S.E. arête of Mt. Robson]. The part from the bergschrund to the Shoulder is the most difficult and dangerous on account of avalanches and stonefalls. Notice the avalanche tracks in the picture.*

We found the Shoulder to be not so wide as we expected. For the first couple of hundred yards, we had to cut steps on the S.E. side. We passed a very big cornice that reminds one of those on the Lyskamm. The part from the Shoulder to the summit looks easy, but one finds out, by the time one gets close to it, that it is deceiving. I found it rather hard to pick a way through the blocks of ice, which you can see from Mt. Resplendent or from the Little Forks River. Some of the broken snow walls are from fifteen to twenty feet high.† We traversed to the left and went almost round to the south arête. I saw that it would take too much time to go over this arête, so we went back, and used a very difficult couloir from one ledge to the other. After that we reached the summit without difficulty.

It took 13 hrs. from the Extinguisher to the top. The aneroid showed 13,000 ft.

The summit is nothing but two big cornices of snow meeting at an angle. The view is very fine but, as experienced mountain climbers know, you never can expect the best view from such a height. The temperature must have been below zero.

We retraced our steps to the Shoulder [or S.S.E. arête]. The time was late, and I would not risk the descent from the Shoulder to the bergschrund, it seemed to me too dangerous. So we descended by the glacier on the S.E. face, which brought us down deep in a short time till we got cut off by a hanging glacier shown in the inset picture. There we had a very dangerous couloir of ice, overhung with séracs, which was the only way of reaching the glacier below. I would not advise using this

* A comparison of the accompanying full-page illustration with that in Mr. Amery's paper, *A.J.* xxv. 302, shows that the route now completed by Conrad Kain is on the same face, but rather more to the S. than the route attempted by Mr. Amery's party in 1909.

† I caught sight of this face from Lake Lazuli (cf. Wheeler's map) in 1911. It was all ice and looked exactly as though the ice had become viscous and had commenced to run like treacle, forming great concentric waves with high crests. These are no doubt Conrad's 'broken snow walls.' They seemed to extend right across the face to the bounding arêtes of either side. J. P. FARRAR.

Bridge A.



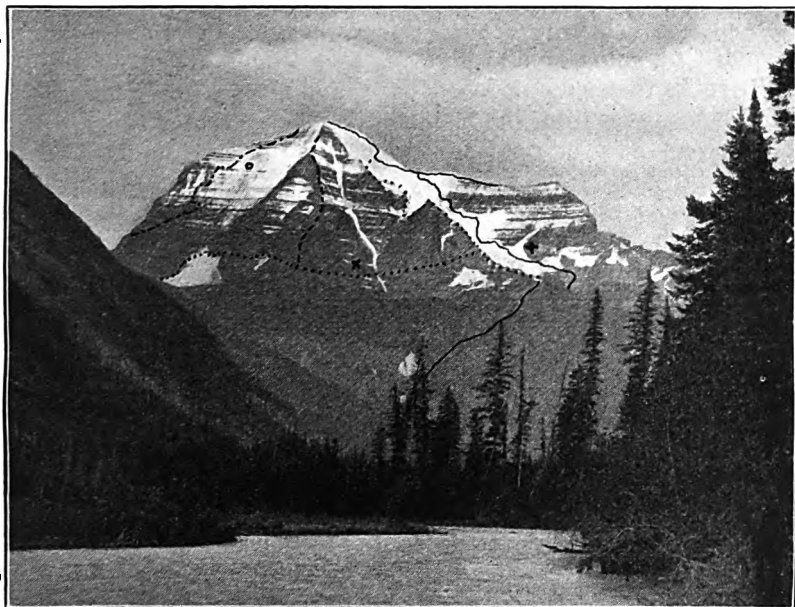
Byron Harmon, photo.

*Mt Robson, (13,068 ft.) E. Face.
Line of ascent shown by black line.*

Lean Electric Engraving Co. Ltd.

route, because of the danger from avalanches. After we got down to the break-off of the second glacier, the night overtook us and we stopped and slept out on a rock ledge.

The next morning we had a rather hard rock climb in going around this hanging glacier. After we got below it, we traversed to the south, and came out to the big valley that runs down to Lake Kinney, through which we came down to the bottom without any noticeable difficulties.



(Photo.: Byron Harmon, Banff, Canada.)

MT. ROBSON FROM THE FRASER VALLEY, SHOWING THE W. FACE ON THE LEFT, THE S. FACE IN THE CENTRE, AND THE S. AND S.E. ARÊTES ON THE RIGHT.

Kain's line of ascent (after reaching the S.S.E. arête from the E.) and descent shown wavy line. Night spent at +.

Schauffelberger's line of ascent shown -----

Kain's line of second ascent shown First night's bivouac at x.

Kinney and Phillips' line of ascent shown — . — . — . Kinney left records at O.

A few days later, the Swiss guide Walter Schauffelberger made an attempt on the S.W. ridge with Mr. Basil Darling of Vancouver, and Mr. Prouty of the Mazama Mountaineering Club. They almost got to the top, and had to turn back only through lack of time. Schauffelberger told me about the difficulties, and he said: 'It is a very interesting, sporting climb, and you can compare it with the Zmutt Grat on the

Matterhorn.' This route will be without doubt the most interesting way of ascent.

About a week later, on August 11, after a bivouac on the S.W. face, Mr. Darling and Mr. MacCarthy, with Schaufelberger and myself, traversed over to the head of the Lake Kinney Valley. We did not expect to reach the summit of Mt. Robson because the weather was very bad, but we gave it a try, and found the ridge [marked by the . . . line] very easy except on one dangerous traverse under an overhanging glacier shown in the picture. I believe that this dangerous traverse can be avoided by going around on a big rock ledge. Then we went over rocks that were not very hard, and got up to the plateau that comes over from the Shoulder [S.S.E. arête]. From there we traversed to the right and struck the route we used on our successful climb. We were very sorry that we had to turn back, 500 ft. under the summit, on account of a blizzard. We went down by the way we had come up.

There is no doubt that this ridge will be the future route to ascend to the summit of Mt. Robson. But the climb cannot be done from Lake Kinney in one day. It will be necessary to build a hut at the head of the Lake Kinney Valley. The snow conditions on the highest peaks in the Canadian Rockies can never be compared with those in the Alps, as there are more avalanches in the Rockies on account of the dryness of the atmosphere, which leaves the snow powdery and unpacked. And so I may say that Mt. Robson will always be a risky climb, even on the easiest side, on account of avalanches.

[Conrad Kain is the permanent guide of the Alpine Club of Canada, and has taken a prominent part in Mr. Wheeler's exploratory expeditions. He comes from Nasswald, a village at the foot of the far-famed Raxalpe, and was well known in Switzerland as well as Austria as a guide of very great promise. He is now in his thirty-first year.]

LA SENGLA.

[ASCENT OF N. SUMMIT FROM THE COL DE LA REUSE D'AROLLA.]

By A. STUART JENKINS.

WHEN it comes to finishing up a district, the enthusiastic climber generally remembers that his favourite playground is beset with mountains of the Cima di Jazzi and Strahlhorn category—not to speak of climbs on distant border

lines—which have not been conquered by his ardour. All the best expeditions belong to the good old days, and the present and future offer only the snow grind, which had hitherto been consigned to winter sport. Yet, if the ground be dear to him, it is hard to leave a stone unturned, a mountain untrodden. The energetic day comes sooner or later, and the proof of the climber's sentimental weakness is furnished by the exertion patiently endured on the everlasting *névé*.

Such was my situation in the Arolla district, a couple of years ago. From every summit ascended and reascended, the Tête Blanche and Tête de Valpelline would stand before me, the very expression of remorse, resulting from unaccomplished acts.

The Tête Blanche was not altogether unknown to me: I had been within twenty minutes of its topmost extremity, when I once returned to Zermatt, from a precocious ascent of the Bouquetins. The flank of the snow hump was skirted and the possibility of its ascent even suggested; but, after short deliberation, the relative firmness of the Z'mutt moraine seemed irresistible, compared with the snow conditions we were in, and our party desisted.

The Tête de Valpelline, also, once afforded us an experience. Local information made us try its S.E. cliffs, by way of a short cut from the cabane Bertol to the Dent d'Hérens. After two hours lost in inextricable couloirs, we found it quicker to go down to vegetation and then reascend the Za de Zan Glacier.

We then swore we would never try either of these climbs again.

But at that time another mountain, also strange to us, attracted our attention a deal more. Between the Col de l'Evêque and the Bec d'Epicoun, a section of a long frontier ridge separates the Arolla and Chanrion mountains from Italy. The highest point of this arête is the Sengla (3702 m.), an imposing rock structure, coated with ice on the Swiss face and prolonging itself to the S., in an uninterrupted succession of large gendarmes, two of which, I afterwards found out, bear the names of Central and South Sengla, and the last one of Bec de Blancien. All these summits had been climbed, though very seldom, and the history of their conquest is brief.

The supposition that in 1866 G. E. Foster ever made a climb on the Sengla from the Col de la Reuse d'Arolla has to be abandoned,* and the first attempt on the mountain falls to

* *Alpine Journal*, xix. p. 370, and xxvi. pp. 342-4.

F. Hoffmann-Merian, with Justin Felley, who, in August 1867, ascended a part of its N. ridge from the Otemma Glacier. They were driven back by a severe snowstorm. Two weeks later, Dr. A. Baltzer and C. Schroeder, with Séraphin Bessard, were more fortunate. Starting likewise from the Otemma Glacier, they attacked the mountain by its western rock face and ascended the central and N. (highest) peaks of the Sengla. The first party to visit the S. Sengla was represented by SS. E. Canzio, F. Mondini, and N. Vigna, with a porter. Starting from Prarayé, they ascended their peak by an eastern rock ridge coming almost to the Combe d'Oren.

As to the Blancien, the last prominence of the great rock wall, it was first inspected in 1879, when A. Cust, with Jean Martin and Pierre Beytrison, made so many explorations in that neighbourhood.

All this latter information was unknown to me in June 1911. We had only, hitherto, observed the frontier line from neighbouring mountains and had no *idea* of a *right way* up any of the peaks contemplated. It was decided, however, we should try a climb from the Col de la Reuse d'Arolla, also known as Col d'Oren, where a sharp fascinating ridge rose to the N. summit of the Sengla.

The project seemed promising—at all events, in adventure—and this expedition had to figure with honour as my last climb in the Arolla district.

A great many will object that distance hardly allows it to rank in the latter district at all. But, then, to what district should the mountain belong? Chanrion is too insignificant a place to claim it, and Prarayé—notwithstanding its hotel—too humble to be considered a district; for that very word evokes, at least, a score of certificated guides, loafing in front of the climber's hotel, and everybody knows that at Prarayé the only available being, willing to carry a rucksack, is the shepherd.

My party was a model one (as far as numbers go), two long-tested Valaisan guides, Jean Bournissen and Jean Gaudin, with their faithful 'voyageur.' Joining forces at Evolène, we bound ourselves by a fifteen days' contract, with the intention of making Prarayé our headquarters. But the trans-alpine season, we were told, had not yet begun, nor was anything provided for the early visitor. Wise from anterior experiment of the shepherd's *polenta*, we decided to take house and roof along with us, ready to drop everything at the foot of a chimney if the burden became too cumbersome. So on

N. Summits of La Sengla.

C.

S.

Gran Becca Biancien.



F. Mondini, photo

THE EAST FACE OF LA SENGLA.

Swan Electric Engraving Co., Ltd.

the evening of June 26, 1911, abundant provisions, Mummery tent, and elaborate camping paraphernalia, were packed and corded and equitably distributed in our rucksacks.

The ensuing morning, the old Arolla pines in front of the Kurhaus were white with snow, newly fallen, and we found nothing better to do than to perfect our hands in the art of pitching the tent in front of the hotel.

The next day, however, was cold and clear, and at 1.50, as the poet would say, we set our faces to the star, which is the star of morning. Notwithstanding its guidance, the lantern came in handy to see us over the Ziggiorenove Glacier. The moraine leading to the Pièce Glacier ruffled up our temper. Its larger stone elements were hard frozen in the gravel, and the pressure of our confident, drowsy footsteps constantly tore them out of their bedding, to roll with them, a pace or two downward. My rucksack pulled heavily on the shoulder-straps, and I mournfully worked out the problem of how much weight I would have had to carry, had an absent porter taken in charge a third of our total luggage. My guides had evidently been drifting in the same sea of thought, for, after an hour's constraint, they did not conceal their displeasure, although it was framed in *patois*. But for all that we certainly were not going to fetch the porter down at Evolène. We were to deposit our load at the foot of the Sengla, four hours further on; till then, we would make the best of it.

The Glacier was good, and the well-hardened fresh snow facilitated our last hour to the Col de Vuignette.

An evenly-tinted dawn, promising a thoroughly fine day, served as a red background to the higher summits, still blue with night. But, I am sorry to say, we did not admire it long. The cold spurred us along the broad and flat Otemma Glacier towards the Col de la Reuse d'Arolla. What a voluptuous feeling, to stretch at a quick pace our muscles, contracted by three-and-a-half hours of steep uphill work!

At 8 o'clock we threw down our baggage on the Col and then sat ourselves down, relieved at the thought of leaving everything there, until the climb was over. The breakfast indulged in was a cold one. Seated, partly sheltered behind a boulder from a bitter north wind, we crammed with trembling hands into our mouths what our chattering teeth would not masticate. Meanwhile, the ridge, which was to lead us to the top of our mountain, could be observed. It was jagged and rose abruptly in a westerly direction from the Col to a minor snow-capped summit, and thence turning southward, with loss of inclination,

formed several gendarmes, the relative height of which our observation point did not allow us to ascertain. Our task seemed none too easy. At a glance it was evident the rock was not sound, and moreover, the wind had beaten the snow against the N. flank of the ridge, covering every slab and filling every available handhold and crevice. From projecting crags hung long icicles. The sun, now well above the neighbouring mountains, seemed to have no effect on this wintry scene, and in fact the north wind was becoming so violent that we abandoned the idea of waiting for later, warmer hours, and hastily began the climb.

The line of ascent was, with slight excursions to the right and left, mainly that of the ridge. The looseness of the rock compelled us to move slowly, often one at a time, where, in other conditions, such a precaution would not have been necessary. What, however, annoyed us above all was the cold. The wind, catching the snow in its vortex, drove it blindingly into our faces. Every handhold had to be cleared from snow, and our gloves soon became wet and frozen in the task. Frequent halts became necessary in order to blow on our numbed fingers, stamp our feet, and uncoil the stiff rope.

The short slope of hard snow, underlying the first summit, seen from below, was hailed with delight. Quick strokes of the axe, executed indiscriminately by amateur and professionals, restored a good blood circulation and brought us in no time to the second section of the arête. Three hours had been spent from the Col to our present standing point, and from the stretch which now separated us from what we thought was the highest tower it was obvious we had not done half the work. So far, we had noticed no nail scratches on the rocks, nor any other sign of a previous climb, and the observant eye could not fail to understand that, if this was not a new way, it certainly could not be the easiest one.

We now followed the ridge in a southerly direction, over and around a number of crags of good sound rock, which offered more or less difficulty. The asperities of the latter were mostly turned on the S. side, comparatively free from snow.

After fearly two more hours of this work our hearts suddenly sank. Behind the gendarme we had long taken to be the summit, appeared another rock peak, which seemed to surpass it in height. The gap separating them was deep, and this second summit horribly distant to our eyes. For a moment we hesitated as to what we should do. It was then past twelve, and, if the second tower was the real one, it was probable the

success of the climb would cost us a cold night, spent on our return to the Col de la Reuse d'Arolla. Was it worth while to climb the first gendarme only to retreat after the effort?—for we foresaw that this first obstacle would not be easy to surmount. The S. flank of the mountain being quite sheer, the eye had to find a way up the N. face, over a succession of slabs, very much iced and covered with snow.

We debated the question, huddled together in a rock-niche. Meanwhile, pocket provisions were produced, which restored much our stomachs and somewhat our *moral*. The day, after all, was very young, and there was no immediate reason why we should not venture a couple of hours more from our base, so we made straight for the slabs on the N. face of the gendarme. They were iced, but also covered with snow, firm enough to carry one's weight. With a cautious tread, we climbed them with ease, and long before we expected were on top of the Sengla, for the other peak that had frightened us was decidedly lower.

The gale had not ceased for a moment since morning, and had now reached its climax. We stayed but a few minutes on the summit, just enough to search the horizon in a circular glance. The sky was perfectly clear, and the atmosphere so pure that we could see mountains in the furthest distance. The Sengla, like many mountains on the frontier of Switzerland and Italy, affords in its view the happy contrast of light and colour in the immediate foreground, due to the unexpected conjunction of the verdant Italian pastures with the white and blue snowfields of the more northern country. Below, at a distance of some three thousand feet, the narrow Combe d'Oren, taking birth from the precipitous slopes leading to the Col de Collon, ran down peacefully from a yellow-green turf above to greener meadows below.

Before descending, we had a look at the breach which separated us from the more southern tower or Central Sengla. It was about a hundred and fifty feet deep, and, under present conditions, of a most uninviting appearance. Its traverse would have taken, perhaps, a couple of hours; but with less snow, of course, it would be much easier, and we then and there nourished the hope of returning later in the season, to try a complete traverse from the Col de la Reuse d'Arolla, over the three summits of the Sengla and over the Bec de Blancien to the Col de Sassa. All these peaks really form but one mountain, and are, as I have said before, the gendarmes of one long continuous ridge, and given the required good climbing conditions we saw no impossibility in the realisation of our hope.

For the present we could only contemplate a hasty descent. It was a little past 2 p.m., and there was not much chance of our recovering our rucksacks on the Col before 6.

There is little to say about our return. We carefully retraced our steps of ascent. An extra rope was brought out on several occasions, to spare time and half-frozen fingers. As the day advanced, a few clouds seemed to quicken its decline by hiding the sun from us. But these were only passing; the wind had torn them to shreds, and was scattering their long fragments over the more southern mountain tops by the time we got back to our abandoned baggage.

The descent took four hours of continuous going.

With the camping paraphernalia once more on our backs, we ran down rocks, slipped over a small glacier tongue, and stumbled over loose moraine to lower regions. In the Combe d'Oren, a flat island of gravel, embraced by two arms of a divided stream, offered a propitious place for pitching the tent. Our reason for not seeking soft turf below was that we intended to climb the Bec de Blancien the next day, and we held fast to the principle that one hour saved in the morning is worth two at night.

The necessities of camping occupied us severally each according to his capacities. Whilst one of us spanned the tent between two ice axes and fastened it laterally to stones by means of strings, the other built the hearth and exhibited his culinary talent. For my part, being a singer, I made use of my cultivated breath by inflating two pillows and an air mattress. In the mountain-climbing business every trade faculty comes in handy, even that of the ventriloquist. A hearty meal was soon smoking at the door of our tent; but to enjoy it we had to retire within, the cold being unbearable. Through the slit opening of our improvised shelter, a mysterious arm brought forth, at even intervals, a hand armed with a spoon, dipped it in the vessel, and returned with equal mystery to its hidden owner.

The night was not a pleasant one. We were much cramped. A space four feet wide for three persons banishes all idea of luxury. It was decided one would lie on his back and the two others sideways. Once a position taken, it could hardly be modified without upsetting the whole combination; so individual tastes had to be consulted, once for all. As Bournissen suffered from an incurable snoring habit, he was granted no choice in the matter; he could not occupy the back position. I took it myself, sacrificing the guides to my comfort. The wind howled during the night and shook

our roof, till we expected at any moment to see our shelter collapse.

By and by, a discreet crepitation against the stretched canvas attracted our attention. Could it be snow? One of us restlessly crawled out into the open to make certain, and instantly came back with the news that the sky was overcast and a very fine snow, driven by the blizzard, was falling and already lying on the ground. It was only midnight. We had time to wait. But at dawn there was no improvement. The fallen snow did not amount to much, but the wind and cold were so intense that we gave up all idea of ascending the Bec de Blancien.

At 8 the weather was again clear. We looked at the mountains and wondered whether we had made a mistake in not starting. It was late, and, besides, we had lost all taste for altitude that morning; so, after gathering up our things, we set out for the first *Alpe* in the Combe d'Oren.

I never go down this narrow valley without giving it my whole tribute of admiration. The contrast of the dark chaotic rock overthrow of its upper part with the calm, warm colouring of the lower vegetation zone is striking. The flowers, modestly disseminated at first, seem to possess warmer hues than elsewhere, a colouring reminding one that this valley belongs to Italy.

We found the *Alpe* empty; the shepherds had not yet come up with the cattle. There was no hurry to get down to Prarayé. We had abandoned our new idea of bivouacking that same day for the Jumeaux, on the W. bank of the Za de Zan Glacier. After all, starting from the valley itself would only give us a couple more hours' work in the morning, and they certainly were worth a good sleep, buried in the hay of the shepherds' barn. So we lingered about, cooking, wading in the clear icy stream and then basking in the sun, stretched out at full length on our stomachs, with our faces hidden in the soft grass. The day was so lovely, and our *far niente* so pleasant, that we did not leave our halting-place for hours.

Prarayé was reached at sunset, just as the cows were let loose in the meadow. Before retiring to rest, we enjoyed the calm poetic enchantment of this remote corner, where pastoral life, with its infinite charm, is still to be found. The sky was cloudless; from all sides came the sound of cow bells, mingled with the calls of shepherds and the barking of dogs, and night crept up slowly, and quenched the last golden lights on the highest peaks.

THE BRAHMA PEAKS OF THE PIR PANJAL RANGE.

BY DR. ERNEST F. NEVE.

THE name Brahma, as applied to groups of peaks, is not uncommon in those parts of the Himalayas inhabited by Hindus. To the east of Kishtiwari there are three charming summits bearing that name.

The Pir Panjal Brahma Peaks are three graceful points which stand out conspicuously at the S. end of the valley of Kashmir. The western summit, which is the highest, has been determined by the Trigonometrical Survey as 15,523 ft., which is almost exactly the same height as Mt. Tatticooti, the ascent of which I described in the JOURNAL, vol. xxi. no. 155.

To the N.-W. of the three peaks, and separated from the valley of Kashmir by a northern spur, lies the lake of Konsa Nag.

Kashmir legends tell of the time when the goddess Parwati used to sail in a pleasure boat from her mountain home on Haramouk in the N., across a vast lake, to Konsa Nag in the S. And in her honour this great sheet of water was called Satisar, the lake of the chaste lady.

Konsa Nag is three miles long. It is the source of the Veshau river, one of the main tributaries of the Jhelum. Its shores are very steep. They are indeed precipitous in places.

The northern aspect of the Brahma Peaks, which overlooks the vale of Kashmir, holds out but little inducement to climbers. Small valleys, the heads of which are filled with glaciers, lead to continuous and formidable-looking precipices. The summits are joined by a jagged arête which on the N. side appears to be inaccessible.

The following is a brief account of a first attempt to reach the summit of the highest of the three peaks. Accompanied by Professor Cox, of the Indian Educational Department, I went to the village of Manzagam, which is about four miles below where the river Veshau debouches in the valley. Here we arranged for transport and supplies, and formed our depot. On June 25 we crossed a ridge about 2000 ft. high, immediately to the S. of Manzagam, and, making our way round the N. spur of the Brahma Peaks, we followed up the Veshau river to Konsa Nag. On June 27 we marched along the S.-W. border of the lake. This involved some steep climbing to avoid precipitous scarps. That evening we pitched our base camp

about a mile above the lake on a turfy patch in the middle of snow. We were able to obtain juniper for firewood from the slopes above. On June 28 we took with us twelve porters with light loads, and pushed up for another 2000 ft. Here we pitched a Whymper tent on the névé just below the rocky face of the peak. A snowstorm came on, and the weather appeared so unsettled that when it cleared at 10 A.M. we decided to make our attempt at once.

There were two possible routes. One, a very steep couloir running up for 1500 ft. to a point about 400 ft. below the peak on the N.-W. arête. This would have necessitated step-cutting up the whole length of the gully. The other line was about 300 yards to the E., where there was a fault in the strata and an oblique ledge leading up quite in the right direction. This ledge had caught the snow, which formed steep patches. But some parts were clear, and in others we were able to scramble along a fringe of loose stones or rock below the snow, so that the amount of step-cutting was greatly reduced. The face of the mountain was composed of great sheets of polished rock, sloping down at an angle of 60° to 80°. As we rose there was an increasing depth of precipice below, and the snow patches became more vertical. Finally, at a height of about 14,500 ft., we took to the rocks above, and were then compelled to make for the arête to the E. of the peak.

The formation was trap of the Pir Panjal volcanic series. We were rather troubled by loose rocks. Wherever there was water, there were clusters of the beautiful purple *Primula Stuartii*.

We reached the arête at 2.45, a four hours' climb from our shelter tent. We found that it fell as an almost sheer precipice on the opposite side, and we were unable to work to the left owing to unclimbable rocky buttresses.

The peculiarity of all three of the Brahma Peaks is that they appear to have only two faces and two arêtes. The northern face is precipitous, and the southern aspect presents a smooth polished surface exposed by cleavage and with few cracks. The arêtes are very broken and do not look practicable.

From our farthest point, which was about 15,000 ft., we were near enough to obtain, with binoculars, an excellent view of the summit. The last 300 ft. did not present a very encouraging appearance.

If an ascent of the final peak is possible, the last snow slope of the ledge will have to be ascended, and then there are only

two routes that are in any degree possible : to the left up a little snow gully, and then by cracks round on to the N. face ; or to the right of the base a snow-filled crack runs obliquely upwards, beyond which it might be less difficult to advance than it looks.

The climb is worth repeating under more favourable weather conditions, and with, therefore, more time at our disposal.

IN MEMORIAM.

SIR ALFRED EAST, R.A.,

PRESIDENT OF THE ROYAL SOCIETY OF BRITISH ARTISTS.

THOSE who climb may do so for scientific purposes, for the sake of adventure, or simply because it is the finest and most health-giving exercise in the world, but whatever other motives they may have, the love of grand and inspiring scenery is common to all mountaineers, and it is natural that the Alpine Club should appreciate the art of landscape painting, and should welcome landscape painters as members of the Club. Sir Alfred East was one of the most distinguished of those who have been elected more on an artistic than on a climbing qualification : his love of travel and his interest in the scenery of many lands were quite in harmony with the spirit and traditions of the Club, and his death removes from its ranks an artist of world-wide fame. In his rendering of nature Sir Alfred was more interested in pictorial possibilities than in topographical facts, but wherever he was painting he never failed to give a true impression of local atmosphere and colour. For many years his pictures have been admired in all galleries of modern art, and perhaps those on whom the task of arranging exhibitions has fallen know best how their decorative qualities enhanced the value of any wall on which they were hung. It was never difficult to find a place where East's pictures would look well ; their masterly design and fine colour, combined with a simplicity which was attained by the careful elimination of facts which were not essential to his scheme, gave them great distinction, and they were a welcome relief to the eye among works attempting to give the infinite detail of nature. His impressions of the peaceful beauty of the Cotswold country, the soft brilliancy of Japan, and the rich colour of Spain will live in our memories among the best work of our time. In addition to his great artistic qualities Sir Alfred was possessed of untiring energy, and spared himself no

trouble in the furtherance of any cause in which he was interested, and though in his later years he suffered much he allowed no physical pain to interfere with his painting or with his devotion to the interests of the Society of which he was President.

ALFRED PARSONS.

CHARLES GILBERT HEATHCOTE.

IN Charles Heathcote the Alpine Club has lost a former Honorary Secretary, and one of those older members who are associated especially with the home-like rooms in St. Martin's Place. Though occasionally at meetings in the present Club-house, he was not, I believe, very often there, nor at many recent Alpine dinners, though he was present both at the Jubilee dinner and at the general meeting which preceded it.

Born in 1841, he was the son of John Moyer Heathcote, of Conington Castle, Huntingdon, and a younger brother of another John Moyer Heathcote, who, among other distinctions, was at one time champion amateur tennis-player. At Eton, Charles Heathcote was select in the Newcastle Scholarship, and played in the cricket eleven of 1859. From Eton he went as scholar to Trinity College, Cambridge, where he fully maintained his reputation for classical scholarship, obtaining a first class in the Classical Tripos of 1863. For a time he held a Fellowship at Emmanuel College; but was soon called to the Bar, and practised, living principally in London, until he accepted the post of Stipendiary Magistrate for the borough of Brighton. On his retirement he settled at Kilmeston Manor, near Alresford, Hants, where he died last December.

He was a man of many friends and many interests. To wide reading and culture he added various active pursuits besides that of mountaineering—a good cricketer in his boyhood, a good shot, an excellent skater (as became one born near the Fens), and not without repute as a tennis player, though, of course, no match for his elder brother. He was elected to the Alpine Club in 1863 and was Honorary Secretary in 1869. As a climber he was very sure and safe, and capable of enduring very long days without flagging; and he was an excellent type of a mountaineer at the time when we had not begun to climb without guides. He loved to be among the mountains; to climb among them; to learn their various beauties, and to paint them to the best of his powers; for, like most of his family, he was an accomplished sketcher in water-colours. My own acquaintance with him began at Eton, where I was a year his junior, and continued at Cambridge, and thenceforward. Among the many personal ties of affection, not the least was that to him I owed my first introduction to the Alps in 1866. With Michel Ducroz and Michel Balmat as guides we crossed several ordinary passes; the Weiss Thor, Valpelline, Col du

Géant, and others ; but climbed only one peak, the Grand Paradis. The only novelty we attempted together that year was the Col de Pierre Joseph from the Italian side, from which we were driven back eventually by bad weather. I recall his staunchness in a critical place on a very steep snow-slope of extremely bad snow—where, as it happens, we ought not to have been at all. Heathcote made the first passage of the Pierre Joseph a little afterwards, but to my lasting regret I had been called away to another part of Switzerland. The descent of the rocks on the Italian side was evidently far from easy. This was his last new expedition. In 1864 he had, in company with Robertson, made the first passage of the Laquin Joch ; and the account which he wrote of this and of the Pierre Joseph is in the third volume of the *JOURNAL*. In the same year he made the first passage of the Col de Diablons, and the first ascent of the Aiguille de Tour. For parts of the summers of 1867 and 1868 we were again together in the Alps, both in the Oberland and in the Engadine. In the following year he married a daughter of the Hon. Walter Wrottesley ; and did not revisit the Alps for several years. He was, however, in Switzerland two or three times in later years, and I remember him telling me that he climbed the Orteler with his son sometime in the 'nineties. No one ever had a cheerier or pleasanter companion for a bivouac or in a herdsman's chalet ; for our travels together were in those days—perhaps more romantic, if less luxurious days—when the cabanes on the Grands Mulets and the Aiguille du Goûté and at the Faulberg were the only three mountain huts in the Alps. He was always attracted by the frank hospitality of the high chalets and interested in the herdsmen's account of their lives, and many I believe of the older generation have the same feeling.

G. E. MARINDIN.

PAUL PREUSS.

By DR. GÜNTHER FREIHERR VON SAAR.

It was on September 16 of last year, on a very fine evening in autumn ; three of us were sitting on the bench in front of the small game-keeper's hut above the Scharwandalm, and we gazed with much satisfaction at the bold towers and walls of the Gosaukamm, to which we intended to devote the next few days. Friend Reintl showed us the remaining problems of the jagged fantastic rock-mass : the Däumling, the Schartenmandl, and sundry others. But straight in front of us the smooth N. face of the Mandlkogel pierced threatening and ghostly into the clear evening sky. 'This face is the finest problem in the Gosaukamm !' exclaimed Preuss, and at once became absorbed in studying, with the help of his glass, the details of this formidable wall. 'Over the 150 m. high Schrofensockel up to the Plattenschuss ; then ascending traverse



Alfred Asel, photo.

Swan Electric Engraving Co. Ltd.

Dr. Paul Preuss.

to the right up to the ridge where the N. face and the W. face join ; up this ridge which is about 200 m. in height, and pitched at an angle of 80° ; at the top of it, traverse to the left to the short cleft which terminates between the two summit teeth. Shall we try it to-morrow ?' We others doubted the possibility of this climb ; Preuss hoped that the very slabby rock was firm everywhere. We declined the expedition, on the grounds that the route was exceedingly exposed and that we could not secure each other effectively with the rope ; good, then he would attempt it alone a fortnight later, for he certainly intended to try the finest problem of the whole Gosaukamm that season.

A few magnificent climbing days followed. With the greatest facility we made several difficult expeditions under Preuss' brilliant leadership. The way in which he solved the most difficult problems as if they were easy and self-evident is still in our vivid recollection. Then came the parting : '*Auf Wiedersehen !*'—It was not to be. Eleven days later Preuss returned alone to the district. On October 2 he was seen for the last time. As no news from him reached his home for ten days, we were asked if we knew anything about his movements. Our sad surmise that he had met with an accident on the N. ridge of the Mandlwand unfortunately proved to be true. On October 14 his body, covered with new snow half a metre deep, was found vertically below this ridge ; systematic sounding of the snow at the probable place of fall led to the discovery of his body. The distance he had fallen was probably about 300 metres. His serious injuries showed that he must have been killed instantaneously.—They laid his body on a bed of pine branches, and carried it down to the valley, and on a dull grey foggy autumn day he was buried in Altaussee in sight of his native mountains.

In Preuss, the German Alpine world has lost one of its most brilliant sons. In spite of his youth—he had barely reached the age of twenty-seven years—he had achieved so much in mountaineering, both physically and mentally, that we must go back a long way, to the unforgettable Emil Zsigmondy, in order to find a similar exuberantly youthful and victorious nature. He was born on August 19, 1886, in Altaussee, went to the Gymnasium in Vienna, then to the University there, and afterwards to Munich University, where he took his degree (Dr.Phil.) in 1912, his subject being the physiology of plants. This line of work did not, however, wholly satisfy him, and he took up empirical philosophy, intending to become a university lecturer in the near future.

His rare mental gifts showed themselves in whatever he did. His thesis for the doctorate is highly thought of by authorities on the subject. He was well read, had a remarkably good memory and great rhetorical powers ; all this would have ensured him a brilliant future had he gone in for a university career. Whatever he did, he went into it life and soul ; whatever it might be, it was well considered and carefully thought out. So he went on, from

deed to deed, from success to success. Self-conceit and self-complacency were strangers to him. His solid knowledge, his ready wit, and his overflowing humour made him a charming companion. All who had the good fortune to make an expedition with him admired his natural kindliness and his great thoughtfulness for his companions. He was also an excellent chess- and tennis-player and fencer.

He was born and grew up in the beautiful mountain district of Altaussee, and his interest in the mountains was aroused at an early age. Curiously enough he was very weakly as a small child and only developed late. Later on he liked to go off and wander in the neighbouring Todtengebirge, the wide wastes of which gave scope to the exercise of his sense of direction. When he was eleven years old, he wandered with a friend to the Hofpürghütte, passed the night in the open from a lack of pence, and then, without any special equipment, ascended the Grosse Bischofsmütze. With gay delight he recalled this early experience when we passed through that district a few days before his tragic end. As a boy, he was fond of climbing about on steep grass slopes and so acquired an exceptionally good balance.

Reinl's climb up the Trisselwand near Aussee had a great influence in stimulating his Alpine ambitions. For weeks he studied the description of this ascent, till he ventured to undertake it, by his lone self. This was his first great Alpine adventure. Later on, with some of his school friends who were much inferior to him, he did several climbs on the Grimming, on the Dachstein, and in the Gesäuse. Only later, in 1908, did he turn his attention to more difficult problems, and found congenial companions in his sister, and subsequently in Paul Relly. With the latter, in particular, he systematically attacked increasingly difficult climbs in 1909, 1910, and 1911. Thus he was no heaven-born miracle, but acquired his marvellous skill by long and arduous work.

The first of his expeditions to attract attention was at the same time a turning-point in his climbing career. This solitary ascent of the W. face of the Todtenkirchl, early in the summer of 1911, was made in the incredibly short time of $2\frac{3}{4}$ h., and, what is more, included a new route in its upper section. The great walls of the Ennsthal and of the Wilde Kaiser were thus his climbing school. It was a pleasure to watch how he conquered a difficult piece of rock; how systematically he advanced metre by metre, trying everything, always retreating as soon as he began to tire or did not feel quite safe; all the time with a perfect balance of his slender, well-developed body.

In the course of a few years, Preuss made more than 1200 mountain ascents, including a large number of new ascents and of new routes, in nearly all parts of the Eastern Alps. Among his more important climbs the following may be mentioned: Crozzon di Brenta, ascent of the N.E. face; Guglia di Brenta, ascent of the

E. summit face and first complete traverse of this mountain ; first ascent and traverse of the *Kleinste Zinne* ; cross traverse of the *Kleine Zinne*, doing all four routes in one day ; N. ridge of the *Grosse Oedstein* (second ascent) ; traverse of the *Langkofel*, *Fünffingerspitze* and *Grohmanspitze* in one day (alone) ; ascent of the W. face of the *Totenkirchel* (alone) ; ascent of the S. wall of the *Innerkoflerturm* by the *Riesenkamin*.

Besides these, he did a great number of difficult climbs in the *Gesäuse*, in the *Dachstein*, in the *Wilde Kaiser*, in the *Wetterstein*, in the *Dolomites*, in the *Silvretta* group and finally in the *Gosaukamm* ; here, in his last few days, he succeeded in solving sundry problems which had hitherto been tried without success (*Däumling*, *Schartenmandl*, etc.), till he lost his life on the last of them, the N. ridge of the *Mandlkogel*.

But Preuss was by no means a rock gymnast pure and simple. The same expertness which he showed on rock, he also acquired on snow and ice. That is evidenced by his tours in the *Ortler* district (traverse of the *Ortler* *via* *Marltgrat-Hochjoch*, *Trafoier Eiswand* and *Thurwieserspitze*, *Bäckmanngrat*, etc.). In the last two summers he went to the Western Alps, where under *Eckenstein's* tuition he learnt modern ice-craft, and then devoted his attention, with enthusiasm, to the great problems of the 4000-m. peaks in the *Mont Blanc* range. Unfortunately the weather was not favourable to serious expeditions in these two seasons, so that he had to be satisfied with smaller climbs (*Dent du Géant*, *Aiguille de la Brenva*, *Aiguille Jos. Croux* and *l'Innominata*, *Aiguille Savoie*, *Aiguille de Tronchey* and *Aiguille de l'Évêque*, *Aiguille Gamba* and *Mont Rouge de Pétéret*, S. ridge of the *Punta Isabella*). Towards the end of last summer, together with his two friends, he succeeded in solving a magnificent problem : the ascent of the *Aiguille Blanche de Pétéret* by the S.E. ridge and traverse to the N.E., so that he discovered a way, difficult it is true, but quite safe from falling stones, up this beautiful but formidable mountain.

His projects in the *Mont Blanc* group were characteristic of his boldness and of his spirit of enterprise : traverse of the *Grandes Jorasses*, ascending by the *Hirondelles* ridge ; a direct ascent of *Mont Blanc* by the *Brenva* flank ; the traverse of the whole *Pétéret* ridge, from the *Val Veni* to the top of *Mont Blanc*. His intention was to ascend the S.E. ridge of the *Mont Rouge de Pétéret*, then descend by its N.W. ridge to the *Fauteuil des Allemands*, then ascend the *Aiguille Noire de Pétéret* by the usual route, descending to the *Dames Anglaises*, which were to be either circumvented or traversed. Then up the S.E. ridge of the *Aiguille Blanche de Pétéret*, and up the *Pétéret* ridge proper to the summit of *Mont Blanc*. Audacious and stupendous though this plan may appear at first sight, Preuss carefully and thoroughly proceeded to work out the details. Evidently the first thing which had to be done was to become acquainted with the component sections of

the whole route. He already knew part of the Mont Rouge de Pétéret; it was on that mountain that H. O. Jones and his wife and guide had perished, while Preuss, as he went ahead alone, unroped, escaped this fate. The Aiguille Noire de Pétéret he had ascended, by the ordinary route, that summer; the S.E. ridge of the Aiguille Blanche de Pétéret he was also already acquainted with. Hence the only thing needed to prove the actual possibility of executing this gigantic plan, was the portion from the summit of the Aiguille Noire to the Dames Anglaises. Preuss would indeed have been the man to solve this great problem; this will hardly be doubted by anyone who knew his endurance and his capacity for work.

But it was not only in summer that he wandered into his beloved mountains; in winter also they drew him. On snowshoes he went forth into their wintry splendours, and here again his achievements were magnificent.

Thus, for instance, he crossed the Hohen Tauern in winter (ascending the Gross Glockner, the Gross Venediger, the Wiesbachhorn, the Grosse Geiger and the Dreierherrenspitze on the way), made expeditions in the Zillerthal district (Grosse Löffler, Moesele, Thurnerkamp with ascent of the redoubtable S. ridge, Olperer, Gefrorene Wand), then several ascents of the Hochkönig, as well as expeditions in the Kitzbühler Berge; finally ski expeditions in the Stubai (Zuckerhütl, Wilde Freiger), and in the Oetzthal (Wildspitze, etc.), as well as in the Silvretta group and in the Arlberg. Last winter he visited the higher Swiss mountains and ascended, on snowshoes, a number of 4000-m. mountains (Monte Rosa and its satellites, Gran Paradiso, etc.).

It is not surprising that public attention was drawn to his feats, and that his name soon became generally known. But what made him even more famous than his feats, were his many lectures and papers, which cover nearly the whole subject of mountaineering. In estimating the number of his lectures at a hundred, I am probably under rather than over the mark. The following is a short list of some of the lectures given by him during the last few years:—

‘Aus der Ortlergruppe,’ ‘Eine Dolomitenreise,’ ‘Turen im Wilden Kaiser,’ ‘Einiges über Wintersport,’ ‘Überschreitung der Guglia und des Crozzon di Brenta,’ ‘Ortler über den Marltgrat, Trafoier Eiswand und Thurwieserspitze,’ etc.

‘Erfahrungen eines Kletterers,’ ‘Die Kleine Zinne,’ ‘Mit Schi auf den Grossenediger,’ ‘Aus Fels und Eis,’ ‘Aus der Langkofelgruppe,’ ‘Auf den Dachstein von allen Seiten,’ ‘Eine misslungene Glocknertur,’ ‘Die Ennstaleralpen,’ ‘Das tote Gebirge,’ ‘Das Totenkirchel,’ etc.

On general subjects: ‘Geschichte und Entwicklung des modernen Alpinismus,’ ‘Alpinismus, Sport und Kultur,’ ‘Ost- und Westalpen,’ ‘Der Alpinismus bei uns und in anderen Ländern,’ ‘Klettertechnik,’ ‘Eistechnik,’ ‘Schitechnik,’ ‘Alpine Technik,’ ‘Geschichte des

Schilaufs und der Schiturstik,' 'Wintersport und Hochturstik,' 'Winterturen alten Stils,' 'Schihochturstik,' 'Von schweren und schwersten Kletterturen,' 'Ernstes und heiteres vom Schwierigkeitsbegriff,' 'Schwierigkeit und Gefahr beim Bergsteigen,' 'Meine schönsten Bergfahrten,' 'Auf neuen Touren,' 'Meine erste Hochtur,' 'Die Handhabung des Seiles,' 'Einführung in den Schilauf,' 'Einführung in die Hochturstik,' 'Die Zukunft des Alpinismus,' 'Turstik und Jagd,' 'Die Hochalpengefahren des kommenden Winters,' etc.

Relating to the Western Alps: 'Winter auf dem Monte Rosa,' 'Schituren in den grajischen Alpen,' 'Auf Schi im Reiche der Viertausender,' 'Überschreitung des Zinalrothorns,' 'Altes und neues aus der Montblanc-Gruppe,' 'Die Aiguille noire und die Aiguille blanche de Pétérét,' etc.

Preuss' abilities as a speaker have already been mentioned. He spoke clearly and fluently, without notes, with an ease which many might have envied. One saw that he spoke out of a full memory, when he talked about mountain expeditions, and when he discussed theoretical questions, he had obviously ample thought and consideration at his disposal. He knew how to suit his words to the momentary disposition of his audience, how to condense and how to elaborate, as he thought advisable. But also in discussion, as controversialist, as upholder of bold theories, he wielded a keen blade. His arguments always struck home, without his ever becoming discourteous or showing any lack of personal consideration. He would cleverly pick out the joints in his opponent's armour, and then attack them with irresistible logic, pointed with keen wit.

Preuss was, however, not only a skilled rhetorician but also a brilliant writer. Among his mountaineering papers, the following may be mentioned:—

'Die Trisslwand,' 'Eine Tur in der Ortlergruppe,' 'Der Crozzon di Brenta,' 'Die Nordkante des Grossen Oedsteins,' 'Neue Touren in der Silvrettagruppe,' 'Die drei südlichen Vajolettürme,' 'Zwei Schitouren im Gebiet des Spannagelhauses,' 'Erfahrungen auf Sommerschiern,' etc., etc.

A power of vivid description, combined with much humour, distinguishes these papers, and yet they never tire one with the minutiae of technical or other conditions. Excellent photographs, taken either by himself or by his friends, illustrate most of his articles. But his wit really became irresistible when he intentionally and designedly treated subjects humorously ('Damenklettere,' 'Putzi als Schiläuferin,' 'Kaiserdenkmal'). These articles surely are among the best that have been written in the field of Alpine humour.

Preuss' real and most important field was, however, that part of his writings in which he treats specific Alpine subjects. Here he is quite a different man. He dissects with unmerciful hand

and with forcible logic erroneous assumptions or faulty conclusions, wrong customs or unpractical suggestions. In particular, I should like to mention three papers which he hurled like bombs into the self-satisfied and smug hypocrisy of sundry Alpine circles and which led to animated debates for and against his assertions.

1. 'Die Alpenvereinshütten im Winter' (published, under the pseudonym P. Schulze, in the 'Mitteilungen des Alpenvereins,' 1912).—With sarcastic humour he describes a number of nuisances in connexion with our Alpine huts in winter, and makes proposals for remedying them. That in doing this he had really touched a sore spot, was shown by the subsequent discussion of this question in 'Winter' and at the last general meeting of the *Alpenverein*.

2. 'Die Amateurfrage' (published in 'Winter' in 1912).—In this Preuss opposes the view that the many ski teachers should be excluded from club competitions and championship competitions, on principle, simply because they utilize ski-ing in order to earn their living. He points out that a strict definition of the term 'amateur' would exclude many individuals, in particular all those who gain any material profit, however small, from this sport. The fear of competition is the real but unacknowledged reason of this narrow-minded action.

3. 'Künstliche Hilfsmittel auf Hochtouren' ('Mitteilungen des D. und Oe. Alpenvereins'; 'Deutsche Alpenzeitung').—Taking into consideration the importance, from the ethical point of view, of the ideas brought forward by Preuss, they are worth closer consideration. Preuss starts with the axiom that the mountaineer, especially the climber pure and simple, should always limit his ambitions to his capacity; that he should try nothing to which he is not more than equal. From this axiom he deduces the following six theorems:

(1) One should not only be equal to any expedition which one undertakes, but more than equal to it.

(2) The standard of difficulty which a climber can conquer with safety when descending, and for which he can consider himself competent, with an easy conscience, should represent the limit of what he should attempt on his ascent.

(3) Hence the use of artificial aids only becomes justifiable in case of sudden threatening danger.

(4) The *Mauerhaken* (spike for driving in) is an emergency aid and not the basis of a system of mountaineering.

(5) The rope may be used for facilitating matters, but never as the sole means for making an expedition possible.

(6) The principle of safety is one of the highest principles. Not the spasmodic correction of one's own want of safety, obtained by the use of artificial aids, but that true primary safety which should result, with every climber, from a just estimate of what he is able, and what he desires, to do.

The enumeration of these six theorems led to much lively discussion. Whatever one's opinion may be, one thing is certain: Preuss asks for a purity of style, for an agreement between what a climber is able, and what he desires, to do, which makes it necessary for him to be a severe critic of himself. With this he has penetrated to the very spirit of mountaineering morality, the most secret recess of Alpine thought and feeling. The development of these thoughts alone should serve to keep his memory green.

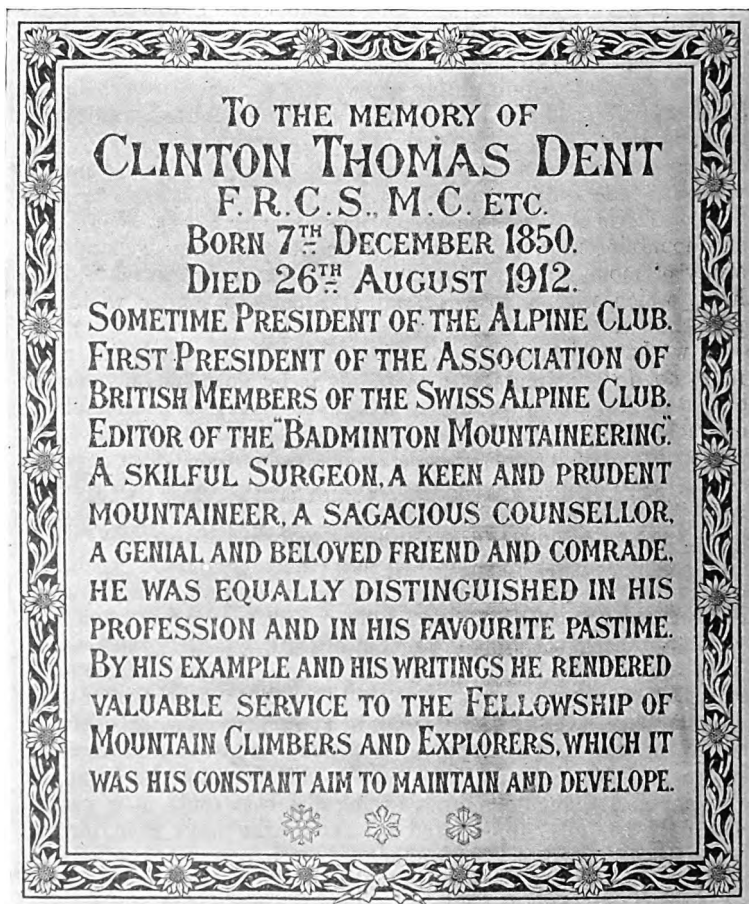
It is intended to publish his papers in a collected form. Let us hope that we shall not have to wait too long before this intention is realized.

Truly Preuss did much in a few years, but it was only a part of what his indefatigable spirit had planned. He intended to issue a whole series of papers on expeditions he had made, a book about ski-mountaineering, a handbook of mountaineering generally, a study of mountains in winter, etc. We can only grieve that the hand which wished to write all this can no longer wield the pen.

If we have hitherto only considered Preuss as mountaineer, we must not forget Preuss as a man. It is by no means always the case that capable men are also amiable and companionable in character. But with Preuss these qualities were combined. His personal amiability, his flowing good-humour, and his constant readiness to help conquered all hearts. He was a truly kind-hearted man, a really noble chivalrous character, a faithful comrade on whom one could rely through thick and thin. Just as he could charm and delight grown-ups, so he at once conquered the hearts of children, with whom he could play and romp as if he were one of them, always ready for any kind of fun. As a companion he would always do the greatest amount of work and carry the heaviest load, and could hardly be induced to give up any of it. His rucksacks were proverbial; he could carry 20-25 kg., going at a good pace, even if the way were steep and difficult. Always ready to work and to help, always good-tempered and cheerful, he was an ideal companion on an expedition. How he found his way in most difficult country, seeing the best route at a glance, can only be fully appreciated by those who have seen him at work.

Now he rests from his bold expeditions and his bold conceptions, in the quiet cemetery of Aussee. As man and companion he won the regard and friendship of all with whom he came into contact; as mountaineer, he deserves a place beside the classical names of former decades.

THE CLINTON DENT MEMORIAL.



This memorial brass has been placed in the English church at Zermatt, and it is proposed to erect a rough stone monument near the Cabane Britannia.

The work was carried out by means of a subscription of members of the Association of British Members of the S.A.C. and others.

THE ALPINE CLUB LIBRARY.

The following works have been added to the Library since October:—

Club Publications.

Alpine Gesellschaft 'Alpenraute,' Lienz. Satzungen. 1906
6 × 4: pp. 7.

'Die Gesellschaft bezweckt die Förderung des Alpinismus im Sommer und Winter (Bergsteigen, Skilaufen und Rodeln) und die Ausbildung ihrer Mitglieder im Bergsteigen sowie die Pflege des Deutschtums.'

Appalachian Mountain Club. Bulletin, vol. vi. 1912-1913
7½ × 5: pp. 139.

This contains various information as to the activities of the Club.

C.A.F. Annuaire de Poche. 1913
6½ × 4½: pp. 72.

This contains an account of the sections, their work, associated local societies, local refuges, guides, hotels: all arranged under the name of each section.

— **Section du Nord, Lille.** Bulletin. 1913
8½ × 6: pp. 102: plates.

The articles are the following:—

L. Berten, Quelques semaines dans les Dolomites.

A. Walter, Première traversée des Petits Charmoz, sans guide.

H. Collette, L'Aig. Verte et le Grépon.

P. Degon, Dans la Haute-Tatra.

Séverin, Dans la montagne norvégienne.

M. Bal, Les arêtes de Pécelet, le Mont-Aiguille, l'Aig. mérid. d'Arves.

— **Section lyonnaise.** Revue alpine. Revue mensuelle. R. Fouilland
Rédacteur en Chef. 1913

9½ × 6½: pp. xii, 484: plates.

Among the articles are the following:—

E. Fontaine, L'Aiguille du Dru et sa niche.

W. A. B. Coolidge, Le Col Lombard et les passages avoisinants dans l'histoire.

A. Gamet, Petites grimpadas en Bugey.

E. Gaillard, Le Mont-Blanc vu de Maçon.

E. Fontaine, Jean Ravanel.

J. Capdepon, Escalades d'entraînement dans le calcaire.

W. A. B. Coolidge, Le Col Major et le Col du Géant.

Lavauden, Le bouquetin des Alpes.

Reprinted from Bull. Soc. dauph. d'études biolog.

W. A. B. Coolidge, F. F. Tuckett.

R. Godefroy, La chaîne de Dourmillouse.

H. M., L'alpinisme militaire suisse et la traversée du Col de la Jungfrau.

J. Tavernier, Le Loetschenthal.

C.A.I. Bollettino per 1911-1912. Vol. 41, num. 74. Torino, 1913
9½ × 6½: pp. viii, 230: maps, ill.

Among the articles are the following:—

G. Lampugnani, Tra le pallide Dolomiti: La Torre Venezia, La Torre Trieste, Il Civetta per la parete N.-W., La Cima Piccola di Lavaredo.

D. B. De Gasperi, Ghiacciai e traccie glaciali nelle Valli di Salarno e di Adamé, Gruppo dell'Adamello.

C. De Stefani, *Il Ghiacciaio del Brenta e gli altri ghiacciai nei Sette Comuni.*

W. Laeng, *Il Gruppo della Presanella.*

C.A.I. L'opera del Club Alpino Italiano nel primo suo cinquantennio 1863-1913.
Torino, Officine graf. d. S. T. E. N., 1913

12½ × 9: pp. 282: portraits and ill.

A most interesting memento of the jubilee of the C.A.I. It is a remarkably full account of all the many activities of the Italian Club and its sections. The illustrations are most excellent and the portraits specially interesting.

— **Cinquantesimo anniversario del C.A.I. Itinerario del xlii Congresso degli alpinisti italiani 5-12 Settembre 1913.** Giovanni Bobba e Agostino Ferrari.
(Torino, Cassina, 1913)

6½ × 4½: pp. 56: map, 5 plates.

— **50. Anniversario.** 6 post card views.

D.u.Oe.A.-V. Zeitschrift, Bd. xlv, Jahrgang 1913. Geleitet v. Heinrich Hess.
Wien, D.u.Oe.A.-V.: München, Bruckmann, 1913

10 × 7½: pp. viii, 324: map, plates.

The articles are:—

O. Ampferer, *Das geolog. Gerüst der Lechtaler Alpen.*

R. v. Klebelsberg, *Die eiszeitliche Vergletscherung d. Alpen.*

W. Hellpach, *Das alpine Naturgefühl u. d. geopsych. Abhängigkeit.*

A. v. Guttenberg, *Naturschutz u. Naturschutzgebiete.*

G. Künne u. R. Pätzsch, *Im arktischen Norwegen.*

O. Stolz, *Tirols Stellung in d. deutschen Geschichte.*

E. Hamza, *Folkloristische Studien a. d. niederöstr. Wechselgebiete.*

W. Steinitzer, *Bergfahrten in d. japanischen Alpen.*

F. Kurz, *Zwischen Kaiserjoch u. Flexenpass.*

P. Zloklikovits, *Vergessene Lande, östlich u. d. Fischbacher Alpen.*

H. Skifozh u. F. Tursky, *Schneeschuhfahrten u. d. Hohen Tauern.*

K. Sandtner, *Die Fanesgruppe.*

G. Mayer, *Die Lankofelgruppe.*

H. Barth, *Die Presanellagruppe.*

D.u.Oe.A.-V. Aachen. Jahresbericht 1911 u. 1912.

1913

8½ × 5½: pp. 23.

— **Satzungen.**

1900

8½ × 5½: pp. 6.

— **Hochland**, Hsg. von. *Die Nördliche Karwendelkette.*

7 × 4½: pp. vi, 107: map, 3 plates.

München, Lindauer, 1913

The climbs described in this book have nearly all been done by members of the Munich 'Hochland' Section. Among the peaks described are the Karwendelsp., Tiefkarsp., Grosskarsp., Hochkarsp. Kuhkopf, Vogelkarsp., etc.

Dartmouth Outing Club, Hanover, N.H., U.S.A. 1909. *Dartmouth out of doors.* A book descriptive of the outdoor life in and about Hanover.

9 × 6: pp. 140: plates.

(Boston, Mass., Crosby, 1913)

'The object of the Club shall be the promotion of interest in outdoor sports, especial emphasis being laid upon winter sports.'

The Mountaineers. *The Mountaineer.* Second Olympic number. Vol. vi.

10½ × 7: pp. 87: plates.

Seattle, 1913

S.A.C. Alpina. *Mitteilungen des S.A.C.* Bulletin officiel. xxi. Jahrgang-1913. Redigiert von Dr. E. Walder.

Zürich, Tschopp, 1913

11½ × 8½: pp. iv, 292: ill.

Among the articles are the following:—

W. Helfenstein, *Auf dem Weisshorn*, September 1911.

C. Bodmer, *Besteig. d. Tschingelhorn.*

W. Norreter, *Eine Zugspitz-Besteig.*

H. Eberli, *Bild u. Humor in d. englischen alpinen Schilderung.*

E. Brown, *Eine neue Route auf das Allalinhorn.*

H. Dübi, Dr. Adolf Wäber. *In memoriam.*

- C. Schröter, Der Nationalpark im Unterengadin.
 R. Richter, Die Ungeheuer-Hörner in d. Silvretta. I. Ueberschreitung des ganzen Grates.
 E. Meisser, Besuch d. Clubhütten im Jahre 1912.
 J. Fritsch, Seile f. alpinen Gebrauch.
 C. Seelig, Spaziergänge d. d. Kaukasus.
 A. Lüssi, Besteig. d. Gamsberges.
 R. Beck, Eine neue Aufsteigsvariante a. d. Strahlhorn.
 H. Hotz, P. Gannä, I. Besteig. ü. d. N.-Wand.
 R. Richter, Eine Besteig. d. Piz d'Aela.
- S.A.C. Jahrbuch.** 48. Jahrg. 1912 bis 1913. Bern, Stämpfli, 1913
 10 × 7½: pp. viii, 404: plates.
 Among the articles are the following:—
 C. Täuber, Avers und Samnaun.
 A. Ludwig, Auf Weillenmanns Spuren am Piz Linard.
 W. Derichsweiler, Zwischen Somvixer- und St. Peterstal.
 C. Bodmer, Eine Campo Tencia-Besteigung im September 1912.
 R. Patocchi, Excursions au Tessin: Massif du Campo Tencia, Les Mognoi, Le Cadonighino, Madonino.
 A. Scabell, Im Quellgebiet der Aare.
 E. Hofmann, Hochtouren im Kaunergrat: Der Verpeils., Der Watzesp., Schwabenkopf.
 A. Emch, Ferientage im Arapahoegebiet.
 C. Seelig, Ein Ausflug ins Hochland von Bolivia.
 A. Dreyer, Schweizerreisen deutscher Dichter in der zweiten Hälfte des 18. Jahrhunderts.
 Neue Bergfahrten 1912. H. Pfann, Aig. de Trélatète: K. Planak, Aig. de Bellaval: P. Reuschel, Tête Nord des Fours: G. Meyer, Wandfluh v. Schönbühlgletscher: H. di Entrèves, Mont Giron N.-O.-Grat: A. Scabell, Lauterbrunner Breithörn v. Schmadrijoeh: O. Tschanz, Grasspass v. Rosenlaur: C. Egger, Cima bianca S.-Grat: E. Amberg, Piz Furcla: H. Eichler, Piz Gallegione N.-W.-Grat: A. Bonacossa, Berninagruppe: H. Sand-Frank, Die älteste Weg am Verstanklahorn.
- **L'Echo des Alpes.** Organe du C.A.S. pour les sections de langue française. 49me année. 1913
 9 × 5½: pp. 568: plates.
 Among the articles are the following:—
 A. Raymann, Eugène Rambert et les Alpes Suisses.
 M. Kurz, Courses en ski dans les Alpes Lépointines.
 L. Spiro, Les origines de l'alpinisme anglais.
 J. Gallet, Le Täschhorn par le versant de Saas.
 P. Willmann, Au Cret de la Neuvaz par le Marchairuz.
 A. Ferriere, A travers le Télémark.
 E. Correvon, Une ascension du Tour Noir.
 P. Morin, Sur le rôle géologique des glaciers.
 A. Bernoud, Fête centrale du C.A.S.
 R. Meylan, 4me ascension de la Cime de l'Est par le versant de St.-Maurice.
- **Reglement für die Urner'schen Bergführer nebst Tarif für Führer und Träger im Kanton Uri.** Altdorf, Gisler, 1913
 6 × 4½: pp. 32.
- **Association of British members.** Clinton Dent memorial. Memorial brass in English Church Zermatt. 1913
- Ski:—**
 Akadem. Ski-Club Freiburg i. Br. 1903. Satzungen. 1913
 9 × 5½: pp. 10.
 — Jahres-Bericht, 1912/13. 1913
 8½ × 5½: pp. 29.

- Föreningen för Skidlöpnings främjande Sverige. På Skidor. Årskrift, 1913-14. Stockholm, Aktiebol. nord. Bokh. 1913
 $8\frac{1}{2} \times 5\frac{1}{4}$: pp. xxx, 216: plates.
- Montreal Ski-Club, 1908. The Ski-Runner in Canada, No. 1. 1913
 12×9 : pp. 48: ill.
- Schweiz. Ski-Verband. Ski Jahrbuch des S.S.V. ix. Jahrgang. Bern, 1913
 $8\frac{1}{2} \times 5\frac{1}{4}$: pp. 188: plates.
- Among the articles are the following:—
 R. Bilwiller, Schneearme u. schneereiche Winter am Nordabhang der Alpen.
 C. Egger, Wildspuren im Schnee.
 Krebs-Gygax, Erinnerungen.
 C. Egger, Schweizerische Schneemaler.
 — Von der Bovalhütte.
 M. Kurz, Dans les Alpes Lépointines.
 G. Miescher, Bruneeggorn.
- Soc. Alp. Trid. Sez. Universitaria. Regolamento. 1910
 $8\frac{1}{2} \times 6$: pp. 4.
- — — Convegno-15 agosto 1913. I° accampamento, Gruppo di Brenta.
 9×6 : pp. 12: ill. Trento, Monauri, 1913
- Yorkshire Ramblers' Club. Annual Report 1912-13. List of Members 1913-14 and Library Catalogue. 1913
 $8\frac{1}{2} \times 5\frac{1}{4}$: pp. 17.

New Books and New Editions.

- Baedeker. Southern France including Corsica. Handbook for travellers. Sixth revised edition. Leipzig, Baedeker: London, etc. 1914
 $6\frac{1}{4} \times 4\frac{1}{4}$: pp. xxvi, 648: maps.
- Barnes, A. H. The great white monarch of the Pacific Northwest, Mt. Rainier. In Nat. Geogr. Mag. vol. 23, no. 6. June, 1912
 10×7 : pp. 593-626: plates.
- Benesch, Fritz. Spezial-Führer auf den Schneeberg. 3. Aufl. Wien, Artaria, 1913
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. vii, 148: map, plates.
- Benson, E. F. Winter sports in Switzerland. With 12 full-page illustrations in colour by C. Fleming Williams and 47 reproductions from photographs by Mrs. Aubrey le Blond. London, Allen, 1913. 15/- nett
 $9\frac{1}{2} \times 7\frac{1}{2}$: pp. viii, 197.

This is a book for the library or the drawing-room table or the hotel salon. It is too large to add to one's luggage. Yet it is a guide to sports and the reader would wish to have it beside him. But on account of its size, it must be read at home and the reader must hope to find a copy when he reaches his hotel in Switzerland. It may perhaps best be regarded as a stimulant to be taken by those who have not yet gone to Switzerland in winter. Its opening chapter on 'The sunseeker' will be found a strong stimulant. The chapters deal with skating, curling, tobogganning, ice-hockey, ski-ing, notes on resorts: and a final chapter for the comfort of parents and guardians. The coloured illustrations are distinctly clever and the photographs, from which the reproductions have been rather indifferently made, have evidently been excellent.

- Bernhard, Oscar. Die erste Hilfe bei Unglücksfällen im Hochgebirge. Für Bergführer und Touristen. Im Auftrage des tit. Zentralkomitees d. D.u.Oe.A.V. u. d. tit. Zentralkomitees d. S.A.C. hsg. 5. vermehrte u. verbesserte Aufl. Stuttgart, Enke, 1913. M. 3
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. 124: plates.
- Bettex, Gustave et Guillon, Edouard. Les Alpes Suisses dans la littérature et dans l'art. Montreux, Matty, 1913. Fr. 5
 $8\frac{1}{2} \times 6$: pp. 334: 82 plates.

A very interesting work, with notes on the various writers and numerous quotations and many fine plates of pictures and prints. There are now several encyclopaedic works on the same subject as this

one, so prolific is mountaineering literature. It is all very recent. The latest instalment of Murray's dictionary shows that such words as snow-clad, snow-field, snow-line, do not occur till the nineteenth century.

Bierbaum, Paul Willh. Streifzüge im Kaukasus und in Hocharmenien (1912). Wanderbilder Nr. 308-317. Zürich, Orell Füssli, 1913

7½ × 5: pp. 278: plates.

Herr Bierbaum was a member of the Swiss expedition to the Caucasus in 1912 and correspondent of the *Neue Zürcher Zeitung*. He writes a critical account of the expedition. For a fuller account of it by various members, see under Caucasus.

Blanchard, Raoul. La crue glaciaire dans les Alpes de Savoie au xviie siècle. In *Recueil d. travaux de l'institut. de géogr. alp.* vol. 1, fasc. 4.

9½ × 6½: pp. 14.

Grenoble, Allier, 1913

Bolt, Niklaus. Svizzero! Die Geschichte einer Jugend.

7½ × 5: pp. 374: plates.

Stuttgart, Steinkopf, 1913

Browne, Belmore. The Conquest of Mount McKinley. The story of three expeditions through the Alaskan wilderness to Mount McKinley, North America's highest and most inaccessible mountain. Appendix by Herschel C. Parker. With 100 Illustrations from original drawings by the author and from photographs and maps.

New York and London, Putnam, 1913. 15/- nett.

9 × 6: pp. xvii, 381: maps, plates.

Technically the title of this work is not quite accurate. Mr. Browne's party (the expedition was made in 1912) had the great misfortune and disappointment not to reach the top of the mountain, though they reached, as the author says, the mountain top. A blizzard against which they had struggled for hours forced them to retreat within a short distance of the actual summit. But practically the mountain was conquered, though the weather conditions unhappily deprived the party of the full glory of the ascent. They will in history get the credit for its conquest, along with Archdeacon Stuck (see below) who on a later expedition, in 1913, was the first to stand on the summit. Happily there is no reason really to be disappointed at the result of the expedition. A very fine piece of work was done against very great difficulties—difficulties which began as soon as the party landed. Yet no one will be able to read the final portion of the book without a feeling of great sympathy for the party deprived at the last of their aim. 'As I brushed the frost from my glasses and squinted upward through the stinging snow, I saw a sight that will haunt me to my dying day. The slope above me was no longer steep! That was all I could see. What it meant I will never know for certain—all I can say is that we were close to the top. . . I turned to Professor Parker and yelled "The game's up; we've got to get down!"'

The book is finely illustrated and most vividly written.

Those interested in the question of mountain sickness will find this quotation of value:—'During the entire climb, La Voy and I were free from any ill effects from altitude, with the exception of moderate shortness of breath, and Professor Parker suffered little more. La Voy and I both found that the use of our arms in step cutting was far more exhausting than leg work. I rolled and smoked a cigarette at 18,000 and 19,000 feet and enjoyed the tobacco as I do at lower altitudes.'

Burlingham, Frederick. The ascent of the Matterhorn. Illustr. Programme of West End Cinema, London. 1913

9½ × 7½: pp. 2.

Butler, Samuel. Alps and Sanctuaries of Piedmont and the Canton Ticino. New and Enlarged edition, with Author's Revisions and Index, and an Introduction by R. A. Streatfeild. London, Fifeild, 1913. 5/- nett

7½ × 5½: pp. 335: ill.

Cairnes, D. D. Portions of Atlin District, British Columbia. In Canada Depart. of Mines Mem. 37. Ottawa, Gov. Print. Bureau, 1913
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 129: maps, plates.

Carnot, P. Maurus. Wo die Bündnertannen rauschen. Erzählungen.
 7×5 : pp. 301. Zürich, Orell Füssli [1913]. M. 2.50

Carozzi, Carlo. Su per l'erta. Novelle. Milano, Pirola, 1913. L. 2
 $7\frac{1}{2} \times 5$: pp. 123.

Caucasus. Natur- und Kulturbilder aus den Kaukasusländern und Hocharmenien von Teilnehmern der schweizerischen naturwissenschaftlichen Studienreise Sommer 1912 unter Leitung von Prof. Dr. M. Rikli.
 Zürich, Orell Füssli, 1914 [i.e. 1913]. M. 10

$9 \times 6\frac{1}{2}$: pp. viii, 317: maps, plates.

This is a series of articles in a popular style written by members of the scientific expedition to the Caucasus in June to September 1912. The work contains a very interesting set of papers. (In connexion with this expedition see also the works under the names of P. W. Bierbaum and F. Fedde.) The editor contributes the greater part of the book. Climbs are described by Dr. W. A. Keller. At the end is a valuable list of literature on the Caucasus including works quite recently published. The plates are numerous and good. Among the articles are the following:—

M. Rikli, Ueber den Kluchorpass nach Teberdinsk.

W. A. Keller, Hochtouren u. Erstbesteigungen im westlichen Kaukasus.

— Ueber den Kumbaschippass zu d. nordkauk. Mineralbädern u. auf d. Kasbek.

C. Seelig, Die Besteigung des Ararat.

M. Rikli, Zur Pflanzengeographie u. Florengeschichte d. Kaukasusländern.

C. Keller, Zur Tiergeographie.

Cicerone, Gaetano. Al Gran Sasso d'Italia. Appunti della grande gita dal 17 al 21 luglio 1913. Roma, Ricca, 1913

$8\frac{1}{2} \times 6\frac{1}{2}$: pp. 38: ill.

Conty. Guides pratiques Conty. Suisse. Tome 1, Ouest. Tome 2, Est. 12e édition. Paris, Conty (1913)

$5\frac{1}{2} \times 3\frac{1}{2}$: pp. xii, 352: maps, etc.

Coupin, Henri. La neige jaune. In La Nature, Paris, 40e année, no. 2050. 12 x 7: pp. 223–226: ill. 7 Septembre 1912

Dauzat, A. La Suisse illustrée. Paris, Larousse 1913]. Fr. 17
 13×12 : pp. vii, 283: maps, plates.

Decomble, Clément. Les chemins de fer trans-pyrénéens, leur histoire diplomatique, leur avenir économique. Paris, Pedone, 1913
 $10 \times 6\frac{1}{2}$: pp. 367: maps.

Dessauer, Alfred. Bergwanderungen in den Ostalpen.

$8\frac{1}{2} \times 5\frac{1}{2}$: pp. xvi, 202: plates. München, Kuhn, 1912. M. 3.50

The author who has now been climbing for eighteen years in the eastern Alps began in a way more fashionable in the early days of climbing than it now is in these 'record' times. He climbed with a companion where they felt inclined without guide or guide-book, often not knowing the name of the mountain climbed. Later he began to make notes and it is from those notes that this pleasant and interesting book has been made up. Climbs are described on the Totenkirchl, Hochgall, Bettelwurf, Kl. Zinne, Lamsen-Ostwand, Mitterspitze, Spritzkar, Waxenstein, etc.

Deutsche Alpen-Zeitung. XIII. Jahrgang (1913/1914). I. Halbband (April 1913–September 1913). Schriftleitung: Eduard Lankes.

$12 \times 8\frac{1}{2}$: pp. 291: plates.

München, 1913

Among the articles are the following:—

F. Henning, Ostertage auf der Frutt.

O. Schulze, Wanderungen mit Wolfgangmüller, dem Maler der Hohen Tatra.

A. Schmid, Ueber den Teufelsgrat im Wettersteingebirge und durch das Kar 'in der Jungfer.'

W. Reiss, Anleitung zu Naturbeobachtungen auf Touren.

A. Finkelstein, Saas-Fee und das Allalinhorn.

M. Bayer, Auf die Fleischbankspitze über die Ostwand.

K. Wizelsperger, Rund um den Langkofel.

G. Faber, Streiflichter aus Ospitale d'Ampezzo.

G. Lahner, Die Höhlenwelt des Dachsteingebirges.

There is in this volume the usual abundance of excellent illustration from photographs, drawings and paintings. Among the plates are reproductions, mostly in colour, of the following:—by Wolfgangmüller, Die Hüttenack-alm bei Ischl, Krivan, Vorübergegangen, Ein Meersauge: by E. T. Compton, Drohendes Wetter: by A. Holzer, Tauwetter in den Bergen: by P. Hey, Morgenpost: by J. Engelhardt, Fleischbank-Ostwand: and others.

— **Mitteilungen der Deutschen Alpenzeitung zu Jahrgang XIII.** pp. 48.

This contains news of Alpine Clubs, on travel and bibliography of alpine books.

Dillmann, Alexander. Die verwünschte Alm und andere Sachen. Fahrten durch Berg und Tal. München, Senger, 1912

7½ × 5: pp. 135: plates.

Well written accounts of climbs, etc. The contents are, Der Kleino Waxenstein: Herbattage im Engadin: Piz Bernina: Campiglio u. Brentaturm: Der Königsspitze: Aus St. Moritz: In Betteggas Klettergarten: Cote 'rien ne va plus': Glocknerfahrt: Muottos Murail u. Schafberg im Winter: Die Montgelas-Nase.

The plates are excellent and clearly printed.

Distel, L. Die Formen alpiner Hochtäler insbesondere im Gebiet der Hohen Tauern und ihre Beziehungen zur Eiszeit. Landesk. Forsch. hsg. Geogr. Ges. München, Hft. 13. München, Riedel, 1912

9½ × 6½: pp. 132: plates.

Dittmar's Führer über den Brenner nach Bozen, and den Gardasee and nach Venedig. 4. Aufl. Nürnberg, Korn, 1913

6½ × 4½: pp. 84: map.

Douglas, C. Gordon: Haldane, J. S.: Henderson, Y.: Schneider, E. C. Physiological observations made on Pike's Peak, Colorado, with special reference to adaptation to low barometric pressures. Phil. Trans. Roy. Soc., London, Ser. B., vol. 203. December, 1912

12 × 9: pp. 185-318: ill.

Contents:—

Symptoms observed on Pike's Peak.

Cause of symptoms of mountain sickness.

Oxygen pressure of arterial blood on Pike's Peak.

Respiration: periodic breathing: total respiratory exchange: circulation: changes in the blood: process of adaptation: effect of altitude on white blood cells: increase of haemoglobin at 15,000 ft.

Egger, C. Die Schutzhütten der Schweizeralpen im Winter. Aus d. Ski Jahrbuch. Bern, Suter, 1913

6½ × 4½: pp. 19.

Faure, Gabriel. La route des Dolomites Tyrol et Cadore.

13 × 10: pp. 129: plates. Grenoble, Rey, 1914 [i.e. 1913]

Fedde, F. Durch den Kaukasus, Armenien und das Wolgagebiet. In Burschen heraus! Akad. Turnbundsbl. Berlin, 26. Jahrg. Nr. 6, Hft. 298.

10½ × 8½: pp. 79-83. März, 1913

Federer, Heinrich. Pilatus. Eine Erzählung aus den Bergen.

7½ × 5: pp. 360.

Berlin, Grote, 1912

F

VOL. XXVIII.—NO. CCMII.

- Ferreri, Eugenio.** Guida alpinistica delle valli del Sangone e della Chisola. Gruppo giovanile 'Sari' del C.A.I. Torino. Torino, Artigianelli, 1913
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. 75: plates.
- Finsterwalder, Sebastian.** Beobachtungen über die Art der Gletscherbewegung. Sitzungsber. k. bayer. Akad. d. Wissensch. Math.-phys. K. München, Januar, 1912
 9×6 : pp. 9.
- Fitzgerald, Mabel P.** The changes in the breathing and the blood at various high altitudes. Phil. Trans. Roy. Soc. London, ser. B., vol. 203. February, 1913
 12×9 : pp. 351-371.
- Gaillard, Emile.** Les Alpes de Savoie. Les massifs entre l'Arc et l'Isère. Guide pour l'alpiniste. Maçon, Faure (1913)
 $7 \times 4\frac{1}{2}$: pp. xvii, 226: sketch maps.
- Galli-Valerio, B.** Cols et Sommets. Ascensions et traversées dans les Alpes de la Valtellina, des Grisons et du Tyrol. Lausanne, Frankfurter: Paris, Flammarion [1912]
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 323: plates. Reprinted from *La Valtellina*, 1888-1910.
 Among the reprints are descriptions of ascents of:—P. Mottolone, P. di Rodes, Pta di Scais par la paroi sud-est, Cima Soliva par la paroi sud, Corno Stella par la paroi nord, Pta di Porola: la Disgrazia, Mte Rolla: Badile, Cima d. Bondasca par l'arête ouest Sella d. Zupo, Mte di Scerscen, P. Bernina, P. Scalino, Bochetta d. Camosoi, etc.
- Gelkie, James.** Mountains, their origin, growth and decay. Edinburgh, Oliver and Boyd, 1913. 12/6 nett.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. xix, 311: plates.
 This is an accurate, interesting, and very readable book, as would be expected from the authorship. The older and the latest theories on mountain formation are described as clearly as is possible. The text is assisted by remarkably good plates from photographs and by numerous diagrammatic drawings. Altogether as good a work as can be had for anyone wishing a general and accurate account of what is up to the present known about mountain shapes in their origin and alteration.
- The Geographical Journal**, vol. 42. July-December 1913
 $9\frac{1}{2} \times 6$: pp. viii, 655: maps, etc.
 This volume contains the following articles:—
 July: Dr. De Filippi's expedition to Karakoram and Eastern Turkestan.
 December: Sir Aurel Stein's new expedition in Central Asia.
- Ghiringhelli, Paolo.** Alpe buona. Novelle e Versi della Montagna. Como, Omarini, 1912. L. 2
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 246.
- Haas, F.** Puchberg am Schneeberg. Ein Wegweiser für Sommergäste. $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 133: map, plates. Puchberg a. Sch., Marktgemeinde, 1912
- Hammer, Walter.** Davos Geburtsstätte und Hochschule des Wintersports. 9×6 : pp. 33: plates. Leipzig, Vollrath, 1912
 It is curious to note that the first mention of ski at Davos was in 1883, which notice had to explain what ski were.
- Hartmann, Otto.** Im Zauber des Hochgebirges. Alpine Stimmungsbilder. $11 \times 7\frac{1}{2}$: pp. viii, 436: plates. Regensburg, Manz, 1913. M. 8-10
 'The spell of the mountains' is a title that will appeal to very many readers, and those who take up this volume in the hope of having the charm of this spell renewed in the midst of their ordinary daily work will not be disappointed. The author has lived and climbed much among the hills, and has long loved them for themselves and for all connected with them. He is able to expound the reasons for his affection and so to describe his wanderings among them that others may renew their thrills of pleasure, or even find in reading greater thrills than any they felt in actual contact, because of the able and sympathetic exposition of the writer. Not so very long ago the spell of the mountains would have been felt as a devilish spell,

for there were few who had to cross them that did not hate them. Now though occasionally an apparently human being may be met who strongly dislikes mountains and is unhappy in their presence, most people interpret 'spell' in the meaning of charm. And yet 'charm' is hardly the word for one's feeling in regard to the greatest Alps. The word, however, is very suitable for the district which this writer knows best and deals with chiefly, the eastern Alps and the Dolomites. For, as we read, 'The secret of the charm of the Dolomites lies in contrasts. Imagine a wide, undulating range of lower hills, of meadows and green vegetation, with small deeply cut valleys rising out of this here and there in irregular manner; rock masses of such height, of such wonderful form and colour as are nowhere else to be found, with the blue of an Italian sky and the brilliant light of the southern sun, different somehow from what it appears anywhere else, which at sunrise and when the day goes to rest glows on precipice and ridge in the whole bewitching scale of colours.' It is the mountains of which this can be written that the author has for years wandered among. He has climbed many of them without guides, in a spirit of adventure, with a friend or friends, often not knowing even the name of the peak they were climbing and without obtaining any information as to routes. This is one good way of renewing the spirit of the earlier climbing days. But this method is a selfish one, making it impossible to communicate one's pleasures to others; and so the author found himself forced to make notes of his wanderings, even though this will deprive readers of his book of the adventuresomeness of ignorance which was one of the author's chief pleasures when he himself first began. The pictures of the mountains are filled in with descriptions of the people, their life, their customs. They are a patriotic people, as one of their favourite songs indicates (quoted on p. 85):—

'Es gibt ja grad oa Zillertal alloan
Von Jenbach bis zum Schwarzenstoan,
Und du kannst die ganze Welt ausgian,
Du findest nirgends wia bei uns so schian.'

And this book is so written that the reader will, at least while reading it, be inclined to agree with that last line.

Haughton, Capt. H. L. Sport & folklore in the Himalaya.

8½ × 5½: pp. viii, 332: plates. London, Arnold, 1913. 12/6 nett

Hegi, Gustav: und Dunzinger, Gustav. Alpenflora. Die verbreitetsten

Alpenpflanzen von Bayern, Oesterreich und der Schweiz. 3. verbesserte Aufl.
8 × 5: pp. 68: col. plates. München, Lehmann, 1913. M. 5

A good little handbook, with short descriptions and coloured illustrations of each flower described, so well rendered as to make it easy to recognise gathered specimens.

Herderschee, A. Franssen. De Wilhelmina-Sneeuwtop in Nieuw-Guinea. In Tijdsch. Kon. Nederl. Aardr. Genoots. 2. ser. deel xxx, no. 6.

9½ × 6½: pp. 789-794. Leiden, November, 1913

Kelly, A. D. A first ascent in the Drakensberg, Mont aux Sources. In the Field, London, no. 3182.

20 December, 1913

16 × 11: p. 1: ill.

Les Hôtels de la France. Colonies & Etranger. Syndicat Gén. de l'Industrie

Hôtelière. Paris, 1913

8 × 5: pp. 253: ill.

The Hotels of Switzerland. Issued by the Swiss Hotel-Keepers' Association.

17th edition. Hotel Tariffs April 1913 to April 1914.

7½ × 4½: pp. 242. Zürich, Bollmann, 1913

Javelle, Emile. Souvenirs d'un alpiniste. Préface de Henry Bordeaux.

8 × 5½: pp. xxxv, 303: plates. Paris, Payot, 1913. Fr. 3.50

This classic, a posthumous collection of articles made by Rambert from

various periodicals, was first published in 1886. This is the fifth French edition. It has a very interesting introduction upon the literary side of alpine writings by M. Henry Bordeaux : and there are several good plates.

The contents of the 'Souvenirs' are :—Une ascension au Cervin : Huit jours dans le Val d'Anniviers : Ascension du Weisshorn : Ascension du Rothhorn : Ascension de la Dent d'Hérens : Salvan : Les gorges de la Sallanche : Le massif du Trient : Première ascension du Tour Noir : Les mazots de Plan-Cerisier.

This edition is very clearly printed : and is a welcome reproduction of a work the style of which is pleasant, lucid and simple, devoid of any exaggeration.

Keller, C. Der Kaukasus und die Schweizeralpen. In N. Zürcher Zeitung, no. 208-209. 29.-30. Juli 1913

Koch, J. P. Den danske ekspedition til Dronning Louises Land 1912-1913. Rejsen tvaers over Island, Vatnajökull. In Geogr. Tids. k. danske geogr. selskab, 21. bd, hefte 7. 1912
12 x 9½ : pp. 257-264 : map, ill.

Koerner, Erich. Die Westalpenstrasse (Route des Alpes) Nizza-Evian. Hendschels Lugnsland, Hft. 40. Frankfurt a. M., Hendschel, 1913. M. 450
8 x 5 : pp. 147 : maps, ill.

Kuhfahl, Dr. Hochgebirgs- und Winter-photographie. Praktische Ratschläge für Ausrüstung und Arbeitsweise. 2. Aufl. Halle, Knapp, 1912
9 x 5½ : pp. vi, 144 : plates.

A work on the special difficulties and particular outfit required for mountain photographing of snow and rock.

Lakowitz, Dr. Nach dem Kaukasus und der Krim. Bericht über die Exkursion d. Westpr. Bot.-Zoolog. Ver. im Juli 1912. Extr. 35, ber. d. Ver. Danzig, Kafemann, 1913

10 x 6½ : pp. 155-194.

Martin, Lawrence. Alaskan glaciers in relation to life. In Bull. Amer. Geogr. Soc. vol. xlv, no. 11. November, 1913
9½ x 6 : pp. 801-818 : maps, ill.

Maurer, G. Das Goldene Buch der Lötschbergbahn. Erinnerungsschrift. 9 x 6 : pp. 43 : ill. Spiez, Maurer, 1913

Merkh, R. 'Es war einmal.' Deutsche Wanderungen in Südtirol und Oberitalien. Innsbruck, Wagner, 1913. M. 3
7½ x 4½ : pp. 340.

This book describes wanderings about the district of which Trient is the centre, with historical and other notes. But it is not for the descriptions that the work is chiefly interesting, but because it describes a debateable land from the point of view of a German, simple-minded in his admiration for the greatness of his own nation : not a chauvinist, but one who laments even that the Italian tongue is spreading in the Trient region.

Monte Rosa. Atti dei laboratori scientifici "A. Mosso" sul Monte Rosa della R. Università di Torino redatti dal Dott. Alberto Aggazotti. Vol. 3 (seguito ai 'Travaux du Laboratoire'). Torino, Bona, 1912. 10/-
9½ x 6½ : pp. 219.

This contains among other articles :—

A. Aggazotti, Contributo alla fisiopatologia del mal di montagna.

— La thérapeutique du mal de montagne.

Ernoult, Botanistes au Mont Rose.

R. Fuchs, Physiologische Studien im Hochgebirge.

Galeotti, G., La flore bactérienne dans les glaciers du Mont Rose.

Vaccari, Sulla flora nivale del Monte Rosa.

Neve, Arthur. Thirty years in Kashmir. London, Arnold, 1913. 12/6 nett
8½ x 5½ : pp. viii, 316 : maps, plates.

- Niller, Ludwig.** Auf der Reitalm. Alpiner-Schwank in drei Aufsätzen.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 74. Berchtesgaden, Vonderthann [1913]
- Post-cards.** Wintertage im Berchtesgadener-Land. 6 post-cards.
 Berchtesgaden, Richter, 1913
- The Public Schools Alpine Sports Club.** Year Book.
 $7\frac{1}{2} \times 5\frac{1}{2}$: pp. 208: ill. Cheltenham, Burrow, 1914
- Rabl, Joseph.** Illustrierter Führer an der Dolomitenstrasse und durch die
 gesamten Dolomiten. 2. verbesserte u. vermehrte Aufl. Hartleben's
 illustr. Führer no. 61, 2. Aufl. Wien u. Leipzig, Hartleben, 1912. M. 6
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. vii, 330: maps, ill.
- This second edition has been corrected with the assistance of various
 Alpine Club sections.
- Ravelli, D. Luigi.** Nuovissima guida illustrata turistica, artistica, storica,
 della Valle Sesia. Varallo-Sesia, Union. tip. vals., 1913. L. 5
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 602: maps, plates.
- La Val Grande del Sesia. Estr. d. Nuovissima guida d. Valsesia.
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 176: maps, plates.
- Varallo e Dintorni. Estr. d. Nuovissima guida d. Valsesia.
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 160: maps, plates.
- Rowbotham, J. F.** The Epic of the Swiss Lake-Dwellers. An epic poem in
 twelve cantos. London, Cromwell, 1913
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 55.
- A description in irregular verse of a struggle between mountain cave
 dwellers and lake dwellers.
- Sacco, Federico.** I ghiacciai antichi ed attuali delle Alpi Marittime centrali.
 Estr. Atti d. Soc. ital. di Sc. nat. Milano, vol. 51. Pavia, Fusi, 1912
 $10 \times 6\frac{1}{2}$: pp. 99-128: map.
- L'esogenia quaternaria nel Gruppo dell'Argentera. Estr. Giorn. di
 geol. prat. anno ix, fasc. v-vi. Perugia, Guerra, 1912
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 49: map.
- Both of the above have been most courteously presented by the author.
- Sapozhnikov, V. V.** Mongolski Altai v istokakh Irtysha i Kobdo. Pyteshest-
 viya, 1905-1909. (The Mongolian Altai to the sources of the Irtysh and
 the Kobdo. Travel, 1905-9.) Tomsk, 1911
 $10\frac{1}{2} \times 7$: pp. xvi, 408: maps, plates.
 pp. 8 résumé in French.
- Schmeckedier, L. F.** Our national parks. In Nat. geogr. Mag., Washington,
 vol. 23, no. 6. June, 1912
 10×7 : pp. 531-579: plates.
- v. Seydlitz.** Geographie. Ausg. D. 2. Heft. Europa ohne das Deutsche
 Reich. 12. Aufl. Breslau, Hirt, 1912
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 103: plates, col. and other.
- Chiefly concerned with the Alps, of various parts of which there are
 coloured plates.
- Stenico, Vittorio.** Nei gruppi dell'Adamello e della Presenella. Omaggio
 d. S.A.T. ai suoi Soci. Trento, Monauni, 1913
 9×6 : pp. 22: ill.
- Stuck, Rev. Hudson.** The ascent of Denali (Mount McKinley). In Scribner's
 Mag., vol. liv, no. 5. November, 1913
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 531-552: ill.
- An account of the first ascent of the actual summit made in June 1913
 by the author and Mr. H. P. Karstens. See entry under B. Browne
 above.
- Switzerland.** Bruckmann's illustr. Reiseführer No. 54-59. Rundreisen in
 der Schweiz einschliesslich des Bodensees, der oberitalienischen Seen
 und Mailand. 27. Aufl. München, Bruckmann, 1913. M. 4
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 382: maps, plates.
- Tarr, Ralph S.** The glaciers and glaciation of Alaska. In Science, New
 York, N.S., vol. xxxv, no. 894. 16 February, 1912
 $10\frac{1}{2} \times 8$: pp. 241-257.

- Tatra.** A Magas-Tatra. Die Höhe Tatra. Magyarországi Kárpát egyesület.
9 × 12 : pp. 127 : plates. 1913
- Tester, Ch.** Unter den Adlernestern. Erlebtes und Geschautes aus den
Bergtälern Rheinwald und Safien. Rorschach, Löpfe-Benz, 1912
7½ × 5½ : pp. (vi), 291.
- Thiele, Josef.** Meine Aufstiege in den Dolomiten 1911. In Saazer Zeitung,
Bohemia, 29. Jahrg. Nr. 30-34. 17 Ap. 1912-1 Mai 1912
- Thompson, Harold Stuart.** Alpine plants of Europe together with cultural
hints. London, Routledge : New York, Dutton (1911). 7/6
8½ × 5½ : pp. xvi, 283 : col. plates.
- Sub-alpine plants or flowers of the Swiss woods and meadows. With
33 coloured plates (168 figures) by George Flemwell.
London, Routledge : New York, Dutton, 1912. 7/6
8½ × 5½ : pp. xv, 325 : col. plates.
- Mr. H. S. Thompson's book on the alpine plants of Europe is the most
useful and valuable book on alpine botany that has been written
for many years.

Books describing species are frequently deficient in illustrations and
illustrated works are sometimes deficient in description. Indeed
now that, as I have heard, Woods' 'Tourists' flora' is out of print,
I know of no work including the flora of the whole range of the Alps,
east, west and central ; so this work is specially useful. The illus-
trations, as might be expected, from so comprehensive a work, are
small, but very accurate and very numerous. There are 27 figures
of saxifrages out of 50 described : 22 out of 35 gentians : and 10
out of 15 campanulas. These numbers give an idea of how copiously
the work is illustrated and of what valuable aid it will prove to the
beginner in alpine botany. The descriptions of the more critical
species will satisfy the more advanced student. The remarks on
the cultivation of alpine plants are full of details useful to the grower
of these plants. The writer has in many cases given habitats for
the rarer species, such as *Crepis jubata*, *saxifraga florulenta* and
cochlearis : but I should like to have seen more habitats mentioned.

Mr. Thompson's other work on 'Sub-alpine Plants' supplies a want
long felt. Many persons with botanical tastes visit the Alps only
in the season before the alpine flora is at its best : many are also
prevented by age or physical weakness from climbing. To such
as these Mr. Thompson's book must be of great value. Like the
other work, it also is well illustrated, though not so copiously.

T. HOWSE.

- Trisanna, Hans von der.** Der Tiroler Lechgau und deren Nachbarschaft
mit besonderer Berücksichtigung der Karwendelbahn.
8 × 4½ : pp. 138 : map, ill. Innsbruck, Wagner, 1913. M. 1.50
An illustrated guide-book to the district north-west of Innsbruck.
- Turner, Samuel.** My climbing adventures in four continents. (2nd impression.)
8 × 5½ : pp. xii, 382 : plates. London and Leipzig, Unwin, 1913. 5/-
- Visser, Ph. C.** Winter in de Alpen. Met een hoofdstuk voor wintersport-
beoefenaars door Jenny Visser-Hooff. Schiedam, Roelants, 1913
8 × 5½ : pp. 112, ii. : plates.
Letters from various resorts, with hints on ski-ing.
- Wells, H. G.** Ann Veronica. London, Newnes, 1913. 7d.
6½ × 4 : pp. 318.
Chapter 16 deals with climbing in Switzerland.
- Widmer, Dr. C.** Die Rolle der Psyche bei der Bergkrankheit und der psy-
chische Faktor bei Steigermüdigungen. In Münch. Mediz. Wochenschr.
59. Jahrg. No. 17. 23 April, 1912.
12½ × 9½ : pp. 112-197.
- Williams, Ira A.** Scenes among the High Cascades in Central Oregon. In
Nat. geogr. Mag. Washington, vol. 23, no. 6. June, 1912
10 × 7 : pp. 579-592 : plates.

Williamson, C. N. and A. M. The princess Virginia.

6½ × 4: pp. 219.

Methuen, London (1913). 7d.

This novel opens with a climbing adventure.

Zeitschrift für Gletscherkunde. Organ der Internationalen Gletscherkommission. Hg. von Eduard Brückner. VII. Bd. 1912-13.

10 × 7: pp. iv, 364: ill.

Berlin, Borntraeger, 1913. 18/-

Among the articles are the following:—

O. Gruber, Der Hochjochferner im Jahre 1907.

C. Rabot, Les variations périodiques des glaciers.

F. A. Forel, In memoriam notice and list of his writings on glaciers.

Isaiah Bowman, Asymmetrical crest lines and abnormal valley profiles in the Central Andes.

S. Finsterwalder, Die Neuvermessung des Suldenferners 1906 u. dessen Veränderungen in den letzten Jahrzehnten.

H. Hess, Ueber die Plastizität des Eises.

L. Martin, Some features of glaciers and glaciation in the College Fiord, Alaska.

Older Books.

Baillie-Grohman, W. A. Tyrol and the Tyrolese. Tauchnitz edition.

6½ × 4½: pp. 278.

Leipzig, Tauchnitz, 1877.

Baulacre, Léonard. Œuvres historiques et littéraires de Léonard Baulacre, Ancien Bibliothécaire de la République de Genève (1728 à 1766).

8½ × 5½: 2 vols.

Genève, Jullien; Paris, Allouard, 1857

Vol. i, pp. 50-69, Lettres sur les glaciers de Savoie from Journ. helvét. 1743.

Berlepsch, H. A. Die Schweiz, Chamounix, Veltlin und die italienischen Seen. 3. Aufl. Zürich, Schmidt, 1880

6½ × 4½: pp. xxxii, 528: maps, plates.

— Die Schweiz, Chamounix, Veltlin und die italienischen Seen. 4te, grossentheils umgearbeitete Aufl. Zürich, Schmidt, 1882

6½ × 4½: pp. xxxii, 472: maps, ill.

— Guides-Meyer No. II. Nouveau guide en Suisse. . . . Traduit sur l'édition de 1863.

Paris, Reinwald; Leipsic, Thomas; Hildbourghausen, Instit. Bibliogr. 7 × 4½: pp. xxx, 556: maps, plates. (1864)

Bingley, Rev. W. Excursions in North Wales, including Aberystwith and the Devil's Bridge, intended as a guide to tourists. Third edition, with corrections and additions made during excursions in the year 1838, by his son W. R. Bingley. London, Longmans, 1839

8½ × 5½: pp. xxxi, 355: map.

Bollmann, L. v. Wegweiser der Schweiz, enthaltend die besuchtesten Gegenden des Landes. Bern, Wagner, 1836

8½ × 5½: pp. (iv), 214.

Bresciani, Antonio. Sopra il Tirolo tedesco.

Lugano, Bianchi, 1840

6½ × 4½: pp. viii, 166.

Brückner, Ed. Die glazialen Züge im Antlitz der Alpen. In C.R. Travaux 9me Congrès internat. de Géogr. Genève, 1908, t. 2.

9½ × 6½: pp. 323-326.

Genève, Soc. gén. d'imprim. 1910

Calligé, Alphonse. Les gorges de la Diosaz (près Chamounix). Ode. Sonnets alpestres. Tulle, Mazeyrie, 1887

5½ × 3½: pp. 30.

Chur. Reise-Routen von Chur in alle Gegenden Bündens und in den angrenzenden Staaten. Chur, Buto, 1836

6½ × 3½: pp. 22.

Conty. Guides pratiques et circulaires Conty. Suisse française. Oberland bernois. Par Henry A. de Conty. Paris, Faure (c. 1860)

5½ × 3½: pp. 252: map, ill.

— Guide Conty. La Suisse circulaire. (7me édition.) Paris, Conty (1893)

5½ × 3½: pp. 292: maps, ill.

- Corona, Giuseppe. La valle d'Aosta e la sua ferrovia. Biella, Amosso, 1878
10 × 6½: pp. iv, 136: map.
- Cumming, C. F. Gordon. Granite crags of California. Cheap edition.
8 × 6½: pp. ix, 384: plates. Edinburgh and London, Blackwood, 1901
- Cvijic, J. Pleistozäne Hebungen und Vergletscherung. In C.R. Travaux 9me
Congrès internat. de Géogr. Genève 1908, t. 2.
9½ × 6½: pp. 297-304. Genève, Soc. gén. d'imprim. 1910
- Dalglish, Walter Scott. Pictures of Norway. In Good Words, vol. 25, London.
9½ × 6½: 13 pp.: ill. 1884
- D'Arve, Stéphen. De Genève à Chamounix. Voyage de la famille Robineau
photographié à la plume par un avoué en vacances. Genève, Vérosoff, 1876
7½ × 4½: pp. 146.
- Daullia, Emile. Voyage impressioniste en Suisse (huit jours au pas de course).
7 × 4: pp. 270. Paris, Dentu, 1887
- Fagan, Henry Stuart. Men and mountains. Short chapters of Swiss history.
In Good Words, London, vol. 25. 1884
9½ × 6½: 18 pp.: ill.
- Fenn, Geo. Manville. The crystal hunters. A Boy's Adventures in the
Higher Alps. London, Partridge [c. 1900?] 1884
7½ × 5: pp. 415: ill.
- Flaubert, Gustave. Par les champs et par les grèves. Pyrénées-Corse.
8½ × 5½: pp. 479. Paris, Conard, 1910
The portion referring to the Pyrenees and Corsica was written when
Flaubert was nineteen.
- Fruh, J. Einbruch des Lötschbergtunnels unter den Casterntal. In C.R.
Travaux Congr. internat. de Géographie Genève, 1908, t. 2.
9½ × 6½: pp. 326-330. Genève, Soc. gén. d'imprim. 1910
- Gautier, Raoul. Température et précipitations au Grand Saint-Bernard. In
C.R. Travaux, 9me Congr. internat. de Géogr. Genève, 1908, t. 2.
9½ × 6½: pp. 348-353. Genève, Soc. gén. d'imprim. 1910
- Giger, J. Kleiner Führer durch Chur Thuis Viamal Schyn.
5½ × 4½: pp. 24: plates. Chur, Hitz [1902]
- Girardin, Paul. Sur des glaciers dont les torrents effluents se déversent dans
les bassins hydrographiques différents. In C.R. Travaux 9me Congr.
internat. de Géogr. Genève, 1908, t. 2. Genève, Soc. Gén. d'imprim. 1910
9½ × 6½: pp. 330-335.
- Greim, G. Beiträge zur Thermik und zum Wasserhaushalt der Gletscherbäche.
In C.R. Travaux 9me Congr. internat. de Géogr. Genève, 1908, t. 2.
9½ × 6½: pp. 335-348. Genève, Soc. gén. d'imprim. 1910
- Groll, Max. Der Oeschinensee im Berner Oberland. Reprinted from 19.
Jahrb. d. G. Ges. Bern. Bern, Haller, 1904
9 × 6: pp. 78: map, plate.
- Gross, Anton Johann. Handbuch für Reisende durch die österreichische
Monarchie, mit besonderer Rücksicht auf die südlichen und Gebirgs-
länder, . . . 2. vermehrte Aufl. München, Lindauer, 1834
8½ × 5: pp. vi, 459: plate.
- Hamberg, Axel. Ueber die Parallelstruktur des Gletscherseises. In C.R.
Travaux 9me Congr. internat. de Géogr. Genève, 1908, t. 2.
9½ × 6½: pp. 353-362. Genève, Soc. gén. d'imprim. 1910
- Jacob, Charles. Etudes récentes sur les glaciers du Dauphiné 1903-1907.
In C.R. des Travaux 9me Congr. internat. de Géogr. Genève, 1908, t. 2.
9½ × 6½: pp. 289-296. Genève, Soc. gén. d'imprim. 1910
- Joanne, Adolphe. Collection des Guides-Joanne. Itinéraire descriptif et
historique de la Suisse du Mont-Blanc de la Vallée de Chamonix et des
vallées du Piémont. 4me édition. Paris, Hachette, 1865
7½ × 4½: pp. cxii, 872: maps, plates.
- Guide illustré du voyageur en Suisse et à Chamonix.
7 × 4½: pp. xxxviii, 510: maps, ill. Paris, Hachette, 1866
- de Kiek, Paul. Huit jours au pas de charge en Savoie et en Suisse.
10½ × 16½: pp. 78: lith. plates. Chambéry, Aubert [c. 1850]

- King, Clarence.** Mountaineering in the Sierra Nevada. Sixth edition.
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. vii, 308: maps. Boston, Ticknor, 1886
- Leigh, Chandos.** The view.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 28. London, Sams, 1819
- Verses written in view of Mont Blanc from the Lake of Geneva.
- Mairot, Henri.** Les Alpes suisses d'Eugène Rambert. Extr. Bull. de l'Acad.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 20. Besançon, Jacquin, 1892
- Marin, Louis.** Une catastrophe au dôme du Gouter. Corbeil, Crété [c. 1907]
 $7\frac{1}{2} \times 4$: pp. 16: ill.
- Martin, A.** La Svizzera pittoresca e suoi dintorni.
 $10\frac{1}{2} \times 7\frac{1}{2}$: pp. 298: plates. Mendrisio, Tip. d. Minerva tic. 1836
- de Martonne, E.** Sur la position systématique de la chaîne des Karpates.
 In C.R. des Travaux 9me Congr. internat. de Géogr. Genève, 1908, t. 2.
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 134-142. Genève, Soc. gén. d'imprim. 1910
- Mayrhofer, Jos. K.** Ueber den Brenner. Von Innsbruck nach Botzen und
 in die Seiten Thäler. Topog.-kulturhist. Schilderung.
 $6 \times 4\frac{1}{2}$: pp. xii, 236: ill. München, Merhoff, 1862
- Mercanton, Paul L.** Etat actuel des études glaciaires. In C.R. Travaux 9me
 Congrès internat. de Géographie Genève, 1908, t. 2.
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 305-307. Genève, Soc. gén. d'imprim. 1910
- L'écoulement du Glacier d'Arolla de 1908 à 1909. In Bull. Soc. vaud.
 d. Sc. Nat. Lausanne, vol. 46, 5. sér. no. 171. Décembre, 1910
 9×6 : pp. 473-503: plates.
- Meyer, Hans.** In the High Andes of Ecuador: Chimborazo, Cotopaxi, etc.
 Portfolio of Plates, 24 large quarto Chromolithographic Plates from
 Paintings by Rudolf Reschreiter. . . .
 $16 \times 12\frac{1}{2}$: pp. 24. London, Williams & Norgate, 1908. £3/15/-
- Mont-Blanc.** Le voyageur au Mont-Blanc et ses environs, en 1840. Historique
 de la Vallée de Chamonix et lettres sur ses principaux points du vue.
 (Le Touriste de 1840.) Lausanne, Rouillier, 1840
 8×5 : pp. 42.
- Montefiore, Arthur.** Some famous alpine ascents. In Century Mag., New
 York. June, 1891
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 257-267: ill.
- Nouzou, René.** Description scénographique et historique de la lisière des
 montagnes du Jura, de celle des Alpes et des parties inférieures de la
 Suisse et de la Savoie qui forment le bassin du Lac de Genève.
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. 213. Genève, Briquet et Dubois, 1835
- Parry, Edward.** Cambrian mirror, or a new tourist companion through North
 Wales; . . . Second edition. London, Simpkin: Manchester, etc., 1846
 $6\frac{1}{2} \times 3\frac{1}{2}$: pp. lii, 353.
- Payot, Venance.** Guide-itinéraire au Mont-Blanc et dans les vallées comprises
 entre les deux St. Bernard et le Lac de Genève. . . .
 $7 \times 4\frac{1}{2}$: pp. 240. Genève, Chisletty: Chamounix, Payot, 1869-75
- Peaks, Passes & Glaciers.** La Porte Noire ou Schwartzthor. Traduit et
 extrait. In Bibl. Univers. Genève, t. viii. Juillet, 1860
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 353-378.
- Prime, Samuel Irenaeus.** Letters from Switzerland.
 New York, Sheldon: Boston, Gould & Lincoln, 1806
 $7\frac{1}{2} \times 5$: pp. viii, 264: plates.
- Promenades d'un artiste.** Tyrol-Suisse. Nord d'Italie. Avec 26 gravures
 d'après Stanfield et Turner. Paris, Renouard, n.d.
 9×6 : pp. 306: plates.
- Richard.** La nouvel Ebel. Manuel du voyageur en Suisse et en Tyrol. . . .
 Nouvelle édition. Paris, Maisson, 1845
 7×4 : pp. xv, xxxi, 596: maps, plates.
- Rijnhart, Susie C.** With the Tibetans in Tent and Temple. Narrative of four
 years' residence on the Tibetan border, and of a journey into the far
 interior. 4th edition.
 Edinburgh and London, Oliphant, Anderson & Ferrier, 1904.
 $7\frac{1}{2} \times 5\frac{1}{2}$: pp. 406: plates.

- Rollins, Alice W. From Palm to Glacier.
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. viii, 165: plates. New York and London, Putnam, 1892
- St. Bernard. Le Mont-Joux ou le Mont-Bernard. Discours Historique, lu à la séance publique de la Société Philotechnique, du 20 Messidor, An 8, suivi d'une lettre de M. Murith, Religieux du Mont-Bernard, sur son origine, . . .
 Paris, Cérutti, an ix (1800)
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 53.
- Schardt, H. Dérivations glaciaires de cours d'eau dans la Suisse occidentale et le Jura français. In C.R. Travaux 9me Congrès internat. de Géographie Genève, 1908, t. 2.
 Genève, Soc. gén. d'imprim. 1910
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 307-323.
- Shirley [ps. Le. Sir John Skelton]. Alpine resting places. A story above the clouds. In Good Words, London, vol. 24. 1883
 $9\frac{1}{2} \times 6\frac{1}{2}$: 39 pp.: ill.
- How to see the Alps. In Good Words, London, vol. 24. 1883
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 371-376.
- Smith, Albert. L'écho du Mont-Blanc. Polka dedicated to his friend Albert Smith by Jullien. London, Jullien [c. 1858]
 $13\frac{1}{2} \times 10$: pp. 8.
- Spencer, Edmund. Travels in the western Caucasus, including a tour through Imeritia, Mingrelia, Turkey, Moldavia, Galicia, Silesia, and Moravia, in 1836. London, Colburn, 1839
 $8\frac{3}{4} \times 5\frac{1}{2}$: 2 vols., frontispieces.
- Theobald, G. Bormio und seine Bäder. Chur, Braun & Jenny, 1865
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 44: map.
- Vallot, Henri. Les progrès récents de la topographie et de la géodésie de haute montagne en France. In C.R. des Travaux 9me Congr. internat. de Géogr. Genève, 1908, t. 2. Genève, Soc. gen. d'imprim., 1910
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 99-106.
- Wagner, Josef. Das Möllthal und der Grossglockner. Klagenfurt, Leon, 1856
 $8\frac{3}{4} \times 5\frac{1}{2}$: pp. 66.
- Whymper, Edward. Explorations in Greenland. In Good Words, London, vol. 25. 1884
 $9\frac{1}{2} \times 6\frac{1}{2}$: 19 pp.: ill.
- Wragge, Clement L. Weather-watching on Ben Nevis. In Good Words, London, vol. 24. 1883
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 356-362: ill.

Subject Index to recent Books and Articles:

- | | |
|---|---|
| Adamello: C. A. I. Bollettino. | America: R. S. Tarr, Glaciers of Alaska. |
| — V. Stenico. | — J. A. Williams, High Casades. |
| Africa: A. D. Kelly, Mont aux Sources. | — Zeits. f. Gletscherk. |
| Aig. de Trélatôte: S. A. C. Jahrb. | Ampezzo: Deutsch. Alpenz. |
| Aig. du Dru: C. A. F. Lyon. | Avers: S. A. C. Jahrb. |
| Aig. mérid. d'Arves: C. A. F. Nord. | Bernina: S. A. C. Jahrb. |
| Aig. Verte: C. A. F. Nord. | Bolivia: S. A. C. Jahrb. |
| Allalinhorn: Deutsch. Alpenz. | Botany: G. Hegi, Alpenflora. |
| — S. A. C. Alpina. | — H. S. Thompson. |
| Alps: G. Bettex, Alpes dans la littérature. | Brenta: C. A. I. Bollettino. |
| — B. Galli-Vallerio, Cols et sommets. | Brunegghorn: Ski: Schw. Ski-Verb. |
| Altai: V. V. Sapozhnikov. | Campo Tencia: S. A. C. Jahrb. |
| America: Dartmouth Outing Club. | Canada: D. D. Cairnes, Atlin District, B.C. |
| — S. A. C. Jahrb. | Caucasus: S. A. C. Alpina. |
| — D. D. Cairnes, Atlin District. | — See under New Books. |
| — L. Martin, Alaskan glaciers. | — P. W. Bierbaum. |
| | — F. Fedde. |

- Caucasus** : C. Keller.
 — Lakowitz.
- Cima Bianca** : S. A. C. Jahrb.
- Col Lombard** : C. A. F. Lyon.
- Dachstein** : Deutsch. Alpenz.
- Dolomites** : C. A. I. Bollettino.
 — C. A. F. Nord.
 — G. Faure, La route d. Dolomites.
 — J. Thiele, Meine Aufstiege.
- Dourmillouse** : C. A. F. Lyon.
- Eastern Alps** : A. Dessauer, Bergwanderungen.
 — A. Dillmann, Verwünschte Alm.
- Fanesgruppe** : D. u. Oe. A.-V. Zeits.
- Fauna** : C. A. F. Lyon.
- Fiction** : N. Bolt, Svizzero.
 — P. Carnot.
 — C. Carozzi.
 — H. Federer, Pilatus.
 — P. Ghiringhelli, Alpe buona.
 — C. Tester, Unter d. Adlernestern.
 — H. G. Wells, Ann Veronica.
 — C. N. and A. M. Williamson, Princess Virginia.
- Fischbacher Alpen** : D. u. Oe. A.-V. Zeits.
- Fleischbanksp.** : Deutsch. Alpenz.
- Folk-Lore** : D. u. Oe. A.-V. Zeits.
 — H. L. Haughton, In the Himalaya.
- Frutt** : Deutsch. Alpenz.
- Geology** : J. Geikie, Mountains.
- Glaciers** : D. u. Oe. A.-V. Zeits.
 — R. Blanchard, Crue glaciaire.
 — S. Finsterwalder, Beobachtung.
 — S. A. C. Echo.
 — F. Sacco.
 — R. S. Tarr, Glaciers of Alaska.
 — Zeits. f. Gletscherk.
- Gran Sasso** : G. Cicerone.
- Grass Pass** : S. A. C. Jahrb.
- Grépon** : C. A. F. Nord.
- Guide-books** : Baedeker.
 — F. Benesch, Schneeberg.
 — Conty, Switzerland.
 — Dittmar's Brenner n. Bozen.
 — E. Ferreri, Val del Sangone.
 — E. Gaillard, Alpes de Savoie.
 — E. Koerner, Nizza-Evian.
 — J. Rabl, Dolomitenstrasse.
 — D. L. Ravelli, Valle Sesia.
 — H. v. d. Trisanna, Tiroler Lechgau.
- Guides** : C. A. F. Annuaire.
 — S. A. C. Urner Bergführer.
- Himalaya** : H. L. Haughton.
- Hochjochferner** : Zeits. f. Gletscherk.
- Hohe Tatra** : C. A. F. Nord;
 — D. u. Oe. A.-V. Zeits.
 — Deutsch. Alpenz.
- Hohe Tauern** : D. u. Oe. A.-V. Zeits.
 — L. Distel.
- Hotels** : C. A. F. Annuaire.
- Huts** : S. A. C. Alpina.
 — C. A. F. Annuaire de poche.
 — C. Egger.
- Iceland** : J. P. Koch.
- Japan** : D. u. Oe. A.-V. Zeits.
- Kaiserjoch** : D. u. Oe. A.-V. Zeits.
- Karakoram** : Geog. Journ.
- Karwendel** : D. u. Oe. A.-V. Hochland.
- Kashmir** : A. Neve.
- Kaunergrat** : S. A. C. Jahrb.
- Langkofel** : Deutsch. Alpenz.
- Langkofelgruppe** : D. u. Oe. A.-V. Zeits.
- Lauterbr. Breithorn** : S. A. C. Jahrb.
- Lechtal** : D. u. Oe. A.-V. Zeits.
- Lepontine Alps** : Ski Schw. Ski-Verb.
- Literature** : S. A. C. Alpina.
 — S. A. C. Jahrb.
 — S. A. C. Echo.
 — G. Bettex, Alpes suisses.
- Loetschental** : C. A. F. Lyon.
- Matterhorn** : F. Burlingham.
- Medical** : O. Bernhard, Erste Hilfe.
 — C. G. Douglas, etc., Physiologic observations.
 — M. P. Fitzgerald, Changes in breathing.
 — Monte Rosa.
 — C. Widmer, Rolle d. Psyche.
 — E. Javelle.
- Military** : C. A. F. Lyon.
- Mont Blanc** : C. A. F. Lyon.
- Mont Giron** : S. A. C. Jahrb.
- Mount McKinley** : B. Browne, Conquest; H. Stuck, Ascent.
- Mt. Rainier** : A. H. Barnes.
- Nature** : D. u. Oe. A.-V. Zeits.
 — Deutsch. Alpenz.
 — O. Hartmann, Im Zauber d. Hochgebirges.
- New Guinea** : A. F. Herderschee, Wilhelmina-Sneeuwtop.
- Norway** : C. A. F. Nord.
 — D. u. Oe. A.-V. Zeits.
- Olympic Range** : Mountaineers.
- Petits Charmoz** : C. A. F. Nord.
- Piz Furcla** : S. A. C. Jahrb.
- Piz Gallegione** : S. A. C. Jahrb.
- Piz Gannà** : S. A. C. Alpina.
- Piz Linard** : S. A. C. Jahrb.
- Poetry** : S. A. C. Jahrb.
- Presanella** : C. A. I. Bollettino.
 — D. u. Oe. A.-V. Zeits.

Pyrénées : C. Decomble, Chemins de fer.

Railways : C. Decomble, Pyrénées.

Schneeberg : F. Benesch.

— *S. A. C. Echo*.

Ski : Under Club Publications.

— E. F. Benson, Winter sports.

Snow : H. Coupin, Neige jaune.

Somvixertal : *S. A. C. Jahrb.*

Strahlhorn : *S. A. C. Alpina*.

Suldenferner : Zeits. f. Gletscherk.

Switzerland : A. Dauzat, Suisse illustrée.

— G. Bettex, Alpes suisses.

Täschhorn : *S. A. C. Echo*.

Tête N. d. Fours : *S. A. C. Jahrb.*

Teufelsgrat : *Deutsch. Alpenz.*

Ticino : *S. A. C. Jahrb.*

Tirol : *D. u. Oe. A.-V. Zeits.*

— B. Galli-Valerio, Collet Sommetts.

— R. Merkh, Es war einmal.

Tschingelhorn : *S. A. C. Alpina*.

Verstanklahorn : *S. A. C. Jahrb.*

Wandfluh : *S. A. C. Jahrb.*

Weisshorn : *S. A. C. Alpina*.

Winter Sports : E. F. Benson.

— W. Hammer, Davos.

— Public Schools.

— P. C. Visser.

Zugspitz : *S. A. C. Alpina*.

[THE CAMPS OF THE ALPINE CLUB OF CANADA IN 1913
AND MR. A. O. WHEELER'S EXPLORATORY WORK.]

THE Alpine Club of Canada's Eighth Camp, organised and superintended by Mr. A. O. Wheeler, was held in the valley of Lake O'Hara directly below Cathedral Mt. from July 15 to July 25. This camp is known as the Cathedral Mt. Camp. Nearly two hundred persons were in attendance, most of them for the full period of two weeks, and climbs and expeditions were in full swing every day.

The following peaks were climbed by a number of parties—namely, Cathedral Mt. (10,454 ft.), Mt. Odaray (10,165 ft.), Mt. Huber (11,041 ft.), Pope's Peak (10,202 ft.), Mt. Victoria (11,335 ft.).

This camp was followed by the camp for active members held at Robson Pass, directly below Mt. Robson, from July 28 to August 9. Sixty-nine persons were in attendance for the full period. The first complete ascent and traverse of Mt. Robson (13,068 ft.) was made by one party. A number of other peaks were ascended, notably Mt. Resplendent (11,173 ft.), Mt. Whitehorn (11,101 ft.), Lynx Mt. (10,471 ft.), besides other climbs and expeditions. Messrs. A. L. Mumm, Haskett-Smith, G. Howard and C. S. Thompson of the Alpine Club and Professor Chas. C. Fay, one of its Hon. Members, were present.

Mr. Wheeler was engaged between June 3 and October 20, upon the Interprovincial Boundary Survey between the provinces of British Columbia and Alberta, being in charge of the topographical work of the Survey as Commissioner for British Columbia.

The topographical mapping data are obtained by the method of photo-topography, which necessitates the climbing of many high peaks during a season. The boundary line is the watershed between the Pacific and Arctic Oceans, and lies along the highest part of the

main range of the Rockies. The work last summer necessitated the climbing of some thirty peaks, the majority not yet named. Over three hundred photographs were taken from these high stations. On the passes the boundary line was established by concrete monuments built on the ground; on the peaks by brass bolts sunk in the rock and cairns of rock 5-7 ft. high erected over them. The maps which are now being prepared will give a graphic delineation of the ground.

THE CHAMONIX FACES OF THE AIGUILLE DU PLAN.

WHEN preparing the note in the last number of the JOURNAL (xxvii. 446-9) with a view to clearing up the history of this side of the peak, a letter of inquiry was addressed to Franz Lochmatter for particulars of the ascent made by Mr. V. E. Ryan and brought a prompt reply of which the following is a translation :

‘ St. Niklaus. October 20th, 1913.

‘ In my guides book I see that the ascent of the Aig. du Plan was in the year 1905 and my brother [Josef] and Mr. Ryan were one party. Then there followed us a party consisting of M. Beaujard with the guide Joseph Simond of Chamonix and some porters whose names I do not know. The ascent is between the Aig. du Plan and the Aig. du Midi and so must be from the Gl. des Pèlerins. It led through a narrow chimney or couloir on to the arête which leads direct from the summit of the Aig. du Plan in the direction of Chamonix and finally along the arête itself which lies between the Gl. de Blaitière and the Gl. des Pèlerins.’

M. Beaujard's ascent is recorded in *La Montagne*, 1905, p. 539, as follows :

PIC DES DEUX AIGLES (3500 m. environ), Massif du Mont Blanc—15 juillet 1905—M. E. Beaujard avec Joseph Simond, des Tis-sourds.—Départ du Plan de l'Aiguille à minuit. Remonter le Glacier des Pèlerins par sa rive droite. Prendre à votre gauche, au N.O., le dernier couloir (celui-là même par lequel Mummery réussit son ascension de l'Aiguille du Plan, traduction Paillon (p. 170 et suiv.). Escalader d'abord les rochers rive gauche du couloir (4 h. 30 mat. environ). Entrer dans le couloir au point le plus élevé où l'on puisse y pénétrer. Tailler en montant vers les rochers rive droite. Quitter le couloir le plus tôt possible : danger de chutes de pierres. Continuer à monter les rochers rive droite (pénétrer une ou deux fois dans le couloir, mais le moins de temps possible). Au point où la glace cesse, attaquer le rocher à pic sur votre droite. Surmonter deux mauvaises cheminées : eau, verglas. De là, sans difficulté,

au Col des Deux Aigles entre l'Aiguille du Plan et le Pic des Deux Aigles (8 h. matin). Tourner à votre gauche. Par une pente de neige traverser face à l'Aiguille de l'M. Arriver au pied du pic sur une dalle étroite en pente. Passer la corde, sans difficultés trop grandes, par dessus le sommet. Monter à bout de corde dans le vide complet, le sommet étant en surplomb. Arrivée au sommet du Pic des Deux Aigles (3 h. soir) : le nom a été donné en souvenir de deux aigles qui n'ont cessé de voltiger autour de la caravane pendant toute l'escalade. Redescendre par le Col des Deux Aigles et de là emprunter la voie du Montenvers par le Glacier du Plan, le couloir N.O. étant impraticable dans l'après-midi.

Translation :

'Mount the Gl. des Pèlerins by its right bank. Take to your left N.W. the last couloir (the one by which Mummery succeeded in making his ascent of the Aig. du Plan) ['A.J.' xvi. 513 and 'My Climbs,' 166].

'Climb first the rocks of the left bank of the couloir. Enter the couloir at the highest possible point. Cut up towards the rocks of the right bank. Quit the couloir at the earliest moment—danger from stones. Continue to ascend the rocks of the right bank, taking once or twice, for the shortest possible time, to the couloir itself. Where the ice ends attack the vertical rocks on your right. Overcome two bad chimneys : water, verglas. From there, without difficulty, to the Col des Deux Aigles between the Aig. du Plan and the Pic des Deux Aigles.'

A comparison of Lochmatter's letter with the note by the late M. Beaujard at last definitely fixes Mr. Ryan's line of ascent which up to now had not been very clear. Lochmatter's 'arête which leads direct from the summit of the Aig. du Plan in the direction of Chamonix' is the arête carrying the Aig. des Deux Aigles, and its upper part is seen on the left-hand top corner of the illustration 'A.J.' xxvii. 448.

The Imfeld-Barbey map, which is, of course, based on the older maps, and not on a special survey, is not very accurate, even if its scale permitted of much accuracy in its delineation of the intricate country of the Chamonix Aiguilles, and a reference should be made to the larger scale (1-20,000) outline map published by MM. H. and J. Vallot in 'La Montagne,' 1909. This outline is based on the triangulations undertaken for their long promised great map of the Chain of Mont Blanc, and shows the subsidiary arêtes of the Aiguilles with accuracy. It will be noted that M. Beaujard terms Mr. Ryan's and his own line, quite correctly, a repetition of Mummery's ascent of 1893, described in a masterly note in 'A.J.' xvi. 513. This view is accepted by M. Emile Fontaine, the great authority on the Aiguilles, and by the authors of the very workmanlike 'Mont Blanc Führer' published in 1913 by the Austrian

Alpine Club; which should be in the hands of every student of that Chain.

On the other hand the attempt in 1892 made by Messrs. Mummery, Slingsby, and Ellis Carr, so vividly described by the latter in 'Two Days on an Ice Slope,' 'A. J.' xvi. 422, starts from the adjoining glacier, marked on Vallot's sketch map 'Glacier Nord du Plan,' and led right up the N. face of the Plan—so that no portion of these two climbs coincides. No attempt appears to have been made to complete the ascent by the N. face which this party were so very near carrying through. The reader of Mr. Ellis Carr's paper can vicariously get excitement and *frissons* enough without venturing himself on these terrible slopes. The N. face is shown by the sketches in Mr. Ellis Carr's paper, and even better by a photo in 'Echo des Alpes,' 1910, 167.

ALPINE ACCIDENTS IN 1913.

ON September 7 **Mlle. [Renée Eugster]**, a well-known French climber, was killed on the '**Aig. de la Persévérance**', one of the **Aiguilles Rouges de Chamonix**. With the guide Alfred Simond and the porter Robert Claret she attempted the descent on the Vallée de Bérard side, which is very precipitous. The party had already double-roped down two pitches and was engaged in descending a third by the same means. The porter had arrived below and was waiting on a small ledge. The rope, however, proved too short for the lady and she had to detach herself for the last bit, but shouted to the guide who was well placed out of sight above that she had landed all right. The guide then commenced to descend but, just at the overhang, he was rendered partially unconscious by a flash of lightning, let go the double rope and fell. The rope, however, got twisted round one of his legs and he fortunately happened to fall on the ledge half suspended by one foot.

The porter hastened to his assistance but Mlle. Eugster had disappeared. Apparently in the excitement she had slipped and fallen, feet first, down the snow couloir by the side of which she was standing. Her body was found 150 m. lower down at the edge of the bergschrund, her clothes having caught on the rocks which stopped her farther fall. A bad wound on the temple was evidently the cause of her death.

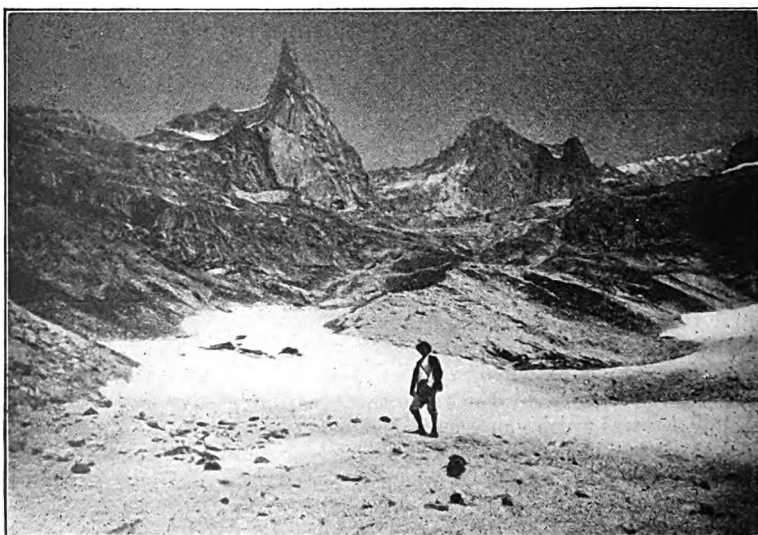
On October 26 **Herr Widauf**, aged 31, described as a competent climber and good gymnast, attempted the ascent of the difficult N. face of the **Vertatscha**. His companion turned back owing to illness and nothing more was seen of Herr Widauf until his terribly mangled body was found on the 28th at the foot of the wall.

NEW EXPEDITIONS IN 1913.

Dauphiné.

PAIN DE SUCRE (AIGUILLES DU SOREILLER).—Dr. Guido Mayer of Vienna with the Cortina guide Angelo Dibona. June 27, 1913.

'Dr. Coolidge and MM. H. Duhamel and F. Perrin give the name "Pain de Sucre" to a point on the ridge of the Aiguilles du Soreiller which was ascended in 1877, cf. "The Central Alps of the Dauphiny," 2nd edit., 1905, page 55.



PAIN DE SUCRE.

'According to unanimous local statements the name, however, belongs to the gigantic rock tooth, forming on three sides unapproachable precipices 400 m. high, and which the above-mentioned authorities call the "fine rock needle which forms the S. end of the S. arête of the Pain de Sucre." Aneroid 3120.

'Left La Bérarde 2.40 A.M., walked down to Les Etages and turned N. up the glen of the Ruisseau d'en Bas, and so with some trouble gained the head of the valley where suddenly the indescribably bold form of the giant tower commanding the whole cirque comes into view.

'From the foot of the S. precipitous face of the needle bear W. into a snow bay and mount (steep and very fatiguing from deep fresh snow) into the gap between a range of teeth in the N. arête

of the peak and the Aiguilles du Soreiller. The teeth (5½ h. from La Bérarde) were turned by an exposed traverse on the W. side, whereupon the gap at the actual precipitous foot of the peak was reached. The ensuing climb up the often extremely sharp-edged crest inclined 50°, the flanks of which on either side fall away almost in sheer precipices, and which is broken by two very difficult gaps with a smooth rib in between, belongs to the most exposed rock climbs in the Alps. From the very sharp summit another point which juts out to the S. was visited. (From the "Einstieg" to the summit about 20 min. hard going.)

'Descent by the same way. Much time was lost in prospecting the E. flank before embarking on the line of ascent described.'

[Translated from Dr. Guido Mayer's MS.]

Mont Blanc Group.

AIGUILLE BLANCHE DE PEUTERET (4109 m. = 13,480 ft., *Imfeld-Barbey Map*) BY THE S.E. ARÊTE.* Herren Dr. Paul Preuss, Carl Prochownick, and Count Aldo Bonacossa, August 28, 1913.—'Left Courmayeur 2 A.M. on August 26 with a porter, halted at Brenva bivouac till 2.25 P.M. Crossed glacier in 1 hr. 40 min. very heavily laden—no porter—to lower bivouac of Dames Anglaises (2800 m.), which was in good order having just previously been used by the Mayer-Dibona party.

'Left on August 27 at 1.40 A.M. In a few minutes to the great couloir between Aiguille Blanche and Dames Anglaises, snow horrible, soft and unstable. Bergschrund traversed with trouble owing to the darkness, then on 'crampons' up the true left of the couloir, very steep and deeply scored by stone-fall grooves. Towards 4 A.M. we inclined on to the rocks descending from the Dames Anglaises and gave up the expedition. Shortly afterwards an enormous fall of stones swept our tracks in the couloir.

'After climbing for several hours in the rocks we descended the margin of the couloir treading good steps for the morrow in soft and dangerous snow. Bivouac attained 2 P.M.

'August 28. After a good night we left our sleeping-bags at the bivouac and started at 1.5 A.M. First up our tracks of the day before, then by means of 'crampons' alone. Couloir is excessively steep—at least as steep as that of Piz Cengalo [52°–57°, *E.L.S.*]. At first we kept to the left, then up the middle, finally to the right. Snow sometimes hard, then quite soft and dangerous; constant fear of stone-fall. By some glazed rocks to the little gap between L'Anglaise Isolée and the S.E. arête of the Aiguille Blanche which here rises with an insuperable step. Halt 5.20 A.M.—5.45 A.M.

'Descent on to the Fresnay side, c. 15 metres, by zigzags over

* For previous expeditions of. *A.J.* xxiv. 877–80, 890–3.
VOL. XXVIII.—NO. CCIII.

most atrocious rocks—not a single reliable hold—then a traverse towards a little chimney in the direction of Mont Blanc, up this chimney—not really difficult, but full of crumbling rocks—to a little shoulder visible from aforementioned gap. Now by an easy horizontal ledge to some easy rocks, up these rocks almost in a straight line to the arête, party moving quickly and simultaneously; arête attained, without difficulty, at the base of the great gendarme on the crest. Much lower down we could perceive the cairn erected by the G. B. Gugliermina—A. Zanutti—Dr. G. Lampugnani—F. Ravelli party [see note at end]. Up a small bit of the crest, then quickly on to its Brenva slope which is traversed over continuously snow-clad rocks, not however difficult (here and there danger of falling stones), till we could pass under the Great Gendarme and gain the ridge which descends from that one S. of the peak, just in front of a small well-marked gap. From this gap starts a gully which splays itself out high up in the wall facing the Brenva glacier. Now up the crest over great boulders, covered with snow towards the end, but without difficulty, till we could regain the S.E. arête a few metres short of a small notch. The descent into this notch is accomplished by a traverse along the Brenva slope (the worst bit of the whole expedition). Now up the arête, over the good easy rocks of its crest or Fresnay slope, till it becomes a snow ridge, when we kept a few metres below the crest on the Fresnay slope, not difficult owing to its moderate angle, but some risk (half a metre of snow resting on rotten ice). Summit reached at 1 P.M.; fog; 40 min. halt on the rock rib overhanging the Brenva face.

‘Left 1.45 P.M. The snowy N.E. arête in a dreadful condition, Brenva slope plastered entirely with snow, rocks covered with ice, the whole time obliged to move one at a time. The [upper] bivouac at 3700 metres buried in snow. We traversed as quickly as possible the snow terraces at the base of the wall, many falling stones. Halt from 5.40 to 6.25 P.M. at [our previous night’s] bivouac; great danger from stones at base of couloir. We halted for the night on the true left of the Brenva glacier, and continued the descent to Courmayeur on the following morning.

‘The most difficult and dangerous part of the expedition is the great couloir nearly 700 metres high [leading to the gap between l’Isolée and the Blanche]. The [S.E.] arête itself is easy. It is far better to start from the Gamba hut, as there is no need then for a bivouac and the couloir [on that side, leading to the same gap] is set at a far different angle.’

ALDO BONACOSSA.

[NOTE OF THE GUGLIERMINA PARTY’S EXPEDITION.]

July 21.—From Courmayeur to the Dames Anglaises bivouac.

July 22.—Ascent of the great couloir partly ice, partly snow, enormously steep (5 hrs.) to the Col between l’Isolée and the Aig. Blanche whence the S.E. arête, above the first great overhang, was

gained up very steep rocks on the Brenva side (stoneman built). The crest of the arête was then followed to the foot of the great gendarme which stands on the Fresnay side of the arête, about 3800 m. (6 P.M.). A blizzard of snow with a hurricane of wind speedily came on, so, to get a little protection, they descended slightly below the arête on the Fresnay side where the night was spent in a snowstorm (wall built).

July 23.—Descent to the Col, about 2 ft. of fresh snow covering the rocks, and, during the night, down the great couloir, continually swept by light avalanches of powdery snow, the Dames Anglaises bivouac being reached early in the morning of the 24th, when at last the snow ceased. This day was employed in crossing the glacier buried deep in snow and Courmayeur was finally regained during the night.

Save for the calm courage and supreme fortitude that never forsook them the whole party must have perished. It is a superb page of Alpine history. Count Bonacossa's comment reads, 'Gugliermi's splendid skill alone saved the lives of the party.'

It will be seen that this route is entirely different from that of the later party who only reached the main arête from the Fresnay side at the base of the great gendarme.

Signor G. F. Gugliermi had taken part in a careful preliminary reconnaissance a few days earlier, but was compelled to leave for home when the others started on July 21. He has placed me under a great obligation by giving me very full details, including a series of photographs, of the eventful expedition which shows once more what men of the calibre of his brother, Dr. Lampugnani, and the others can support. In Courmayeur the party was given up for irretrievably lost, as it was considered impossible for any human beings to stand such continuous exposure. J. P. FARRAR.]

AIG. DE GRÉPON (3489 m. = 11,447 ft.) FROM THE S.W. (variation). Messrs. H. C. Bowen and L. W. Rolleston with Joseph and Gabriel Lochmatter. August 26, 1913.—From the bottom of the Dunod Chimney, a traverse was made to the north over a slab with little hold for about 7 ft., whence an ill-defined chimney leads directly upwards to a small ledge 10 ft. above. By traversing a few feet along this, one can reach the well-marked chimney which is parallel to and about 12 ft. to the N. of the Dunod Chimney. This big chimney leads up to the crack by which the highest point of the Grépon is usually ascended, and when once reached, there is no further difficulty.

With the kind help of Mr. Belcher's party at the big gendarme, the Grépon and Charmoz were then traversed.

The climb was planned entirely by the guides, one of them having noticed the chimney on a previous descent. The advantage of the new route is, of course, that by it the highest point of the Grépon can be reached from the south without having to sling a rope in

order to get up the Dunod Chimney. It is suggested that the new chimney be called the 'Lochmatter Chimney.'

Mr. J. H. Wicks, who many years ago made with François Simond what he believes to have been the second ascent of the Dunod Chimney, repeated the ascent by the Lochmatter Chimney on August 28, with Henri Rey and Joseph Simond. On talking over the variation with François Simond on the following day, the latter stated that he had tried the traverse with M. Dunod in August 1885, but had not been able to reach the Lochmatter Chimney.

PETIT MONT BLANC (3431 m.=11,257 ft., *Imfeld-Barbey Map*). BY THE N.E. ARÊTE ATTAINED FROM THE N.E. Signori G. Scotti, R. and A. Calegari, August 13, 1913 ['R. M.' 1913, pp. 359-60, with marked illustrations].—From a bivouac party ascended Miage Glacier as far as the outlet of the second gully (2 hrs. 55 min.), well shown on map, which rises steeply from the true right bank of that glacier to gap between Petit Mont Blanc and peak called L'Aiguille de l'Aigle (c. 3573 m.), not named or measured on the said map, but indicated by patch of rocks immediately N.W. of Petit Mont Blanc. Up this gully, snow at first good then bad, keeping to its true right to avoid continuous stone fall from Aiguille de l'Aigle, to a well-defined depression in the N.E. (really N.N.E.) arête of Petit Mont Blanc. Along arête, first up a steep step covered with fresh snow, then more to the S. either over jagged and rotten crest, or turning great teeth by traversing insecure slabs; mists always dense and fitful snow flurries. Small snowy gap, c. 3100 m., finally attained (3½ hrs.). Arête now splays out into a wall very steep in its upper portion; up this wall by snow-covered rocks and a series of unstable ledges and steps all requiring much care, to a kind of false top crowning the rocky buttress rising from Miage Glacier. Arête now bends W.; along its narrow and insecure rocky crest, later covered with snow, to another low black wall; up this wall, then a traverse to the S. to an abrupt gap in Petit Mont Blanc and Aiguille de l'Aigle summit ridges. Then, passing beneath a great tower, by the crest quickly to snow cone forming the summit (5 hrs. 35 min., or 12 hrs., including halts). Descent by ordinary route.

PETITE AIGUILLE DES GLACIERS (3459 m. = 11,350 ft., *Imfeld-Barbey map*). FROM THE S.E. Same party, August 16, 1913. ['R.M.' 1913, p. 360, which gives the height as 3559 m.].—From a bivouac at L'Hognan past the Lac de Combal to the upper Chalets de l'Allée Blanche, thence up moraine and snow beneath Pyramides Calcaires to the outlet of a great steep gully contained by two rocky ribs descending from Petite Aiguille des Glaciers in a S. and S.E. direction towards Col de la Seigne. Up two débris-strewn rock steps to tongue of gully; up gully for two-thirds of its height, then beneath and along rocks of S.E. arête to a snowy notch in its crest, c. 3160 m.,

descending N. towards Estellette Glacier ($4\frac{1}{2}$ hrs.). Thence up S.E. arête keeping always below crest over loose glazed rocks, till point where aforementioned great gully merges abruptly in the great retaining ice wall of rocky summit. First, up a snowy cone inserted in patch of extremely bad rocks, then by the wall itself, heavy step-cutting, steering towards outcrop of rocks in ridge; up these rocks ['pitons'] to the ridge, then over less steep and better snow to a rock tower, c. 3400 m., emerging from the snow ($2\frac{1}{2}$ hrs.). Now over plateau connecting with summit, keeping well down to avoid gigantic cornice overhanging Estellette Glacier to a crevasse crossed by narrow bridge. Up steep snow and the N. slope of some dangerously snow-covered rocks to the summit ($1\frac{1}{2}$ hr. or $8\frac{1}{2}$ hrs., including halts). Descent by N.W. arête to great depression connecting with Aiguille des Glaciers, thence by ordinary route to Col de la Seigne. Conditions, 'as in winter.'

Pennines.

LAQUINHORN (4005 m. = 13,140 ft., *S. map*).—BY THE E. FACE. Herr Carl Prochownick and Count Aldo Bonacossa, August 3, 1913.—

From the village of Simplon party bivouacked at Hohsaas, 2430 m. ($2\frac{1}{2}$ hrs.). Left 4.40 A.M., weather cloudy. By grass and débris slopes in a S.W. direction to the little glen to the N. of the left lateral moraine of the Fletschhorn glacier; up this glen to its top, then over the moraine and along the N. bank of the snowless glacier; the lower icefall of which is turned by easy rocks and wearisome débris to the N. Upper glacier is now reached and followed due W. by its centre—some great crevasses—to the foot of the great snowy couloir, between the Fletschhorn and Laquinhorn, rising to the Fletschjoch. Over the easy bergschrund and up the S. margin of the couloir, at first exposed to falling stones, for some hundred metres, then on to the rocks of the S. bank of the couloir, attained with difficulty owing to awkward crevasses. Up these rocks, close to the couloir, good and pleasant scramble, to the sort of shoulder shown on *S. map* where the contour line 3600 cuts the rocks. By moderately inclined slopes forming a sort of arête—also indicated on the map—snow in a most watery condition, we attained the final rocks some 80 metres below the summit; these are at first easy, then rotten and choked with snow, water, and ice. A risky scramble then brought us to an excessively steep snow slope some 20–25 metres high, by which the summit ridge two rope's-lengths N. of the top was attained, 1 P.M.

Descent by the corniced N. arête to Fletschjoch, then over vast quantities of snow to Balen and Stalden reached in the night.

A splendid ascent without serious difficulty; the day was very hot, snow in a dreadful state, so our time could easily be shortened by 2–3 hrs.

ALDO BONACOSSA.

Bernese Oberland.

SCHIENHORN (3807 m. = 12,491 ft. *S. map*).—BY THE E. ARÊTE.—Miss Rosamund Botsford, Counts Ugo di Vallepiana and Aldo Bonacossa. September 6, 1913.

From the upper Aletsch hut up the Ober Aletschfirn in the direction of the Sattellücke over crevassed slopes to a point near the rocks of the N.E. arête of the Distelhorn, then a traverse in a semicircle to the S. always between great crevasses, snow very bad, finally up an avalanchy slope on to the E. slope of the E. arête of the Schienhorn; by this way, after crossing the easy bergschrund, the arête is attained just where it forms a small shoulder before falling in a great step to its base (3½ hrs., slow owing to bad snow). Arête descends vertically on the left, S.—and for some way is easy, although affording a splendid granitic scramble, interspersed with little snow crests. Always over the crest till arête becomes steep, here a great gendarme is turned by its N. slope [same difficulties approximately as the traverse of great tooth on E. arête of Süd-Lenzspitze]. Arête again followed, most interesting, till it turns to very steep snow leading to first top, the junction of E. and N. arêtes, from which a few steps lead to the base of the abrupt 'step' connecting with the final ridge. The 'step' was so choked with snow and the cornice so great that it was impossible to halt at the top (7 hrs. 50 min., including 45 min. halt). Descent by ordinary route, over half a metre of bad fresh snow.

A very interesting route of moderate difficulty throughout, quite the best expedition about the basin of the upper Aletsch glacier. When the rocks are dry not more than 7 hrs. from the hut will be needed."

ALDO BONACOSSA.

CAUCASUS.

Adai Khokh or Tsaya Group (= Freshfield's Zea).*

Tsaya Aiguilles.

TÜR KHOKH = 13,500 (aneroid).—The name is proposed for one of the 'bristling fence of granite teeth' (see Freshfield and Sella, 'The Exploration of the Caucasus') on the N. side of the Tsaya Valley. The tür is the Caucasian representative of the bouquetin of the Italian Alps, and the animal is fairly abundant on and about the mountain. On July 11, 1913, a party consisting of Messrs. W. G. Johns, W. N. Ling, Rembert Martinson, Harold Raeburn and J. R. Young made the first ascent of the peak, from a camp near the upper limit of the Tsaya forest, 6300 ft.

Leaving the tents at 5.15 A.M. a good track was followed for 45 m. after clearing the forest, up left moraine of Tsaya glacier. Here a wide scree-floored corrie opens out on right. This leads above to a

* Khokh is pronounced strong guttural, like Scotch 'loch' or German 'hoch.'

col, the^e lowest depression in the ridge between points 4193 and 4294 of Merzbacher's map (G. Merzbacher, 'Aus den Hochregionen des Kaukasus'). Snow was reached at 7 A.M. Up this and an easy snow gully—later probably almost all rocks or ice. Col reached 2.35 = 13,100 ft. Descent on N. side to Karissart * glacier and Dunti looks easy.

Up snow arête to left (west) to rock wall of final peak, steep good rocks to summit (granite) 3.25 = 13,500 ft. Return same way. Very long, good glissades (clin. angle 40°-42°).

Camp was regained at 6.50 P.M.

ULLARGH KHOKH, 14,170 ft. (aneroid).—This seems to be the point marked 4294 m. = 14,085 ft. on Merzbacher's map, but that map is very imperfect and inaccurate in this part of the range, and the Russian 1 verst map, though much more accurate, only names one or two summits (there are more than twenty of over 13,000 ft.), and gives very few heights. Ascended July 13, 1913, from a camp at 9800 ft. on N.E. slope of ridge (many huge gendarmes) running S.E. from Songuta and dividing Songuta or Adai Khokh glacier from a small nameless glacier (Ullargh glacier?) lying on S. slopes of points 4347 and 4294 (M. map). The name is said to be the local word for the great rock partridge, *Tetraogallus caucasicus*, which bird is abundant, its musical reveille call ringing round the rocks at dawn. Leaving camp 4 A.M. the party traversed steep grass slopes, then moraine and glacier, and ascended a steep snow gully, finally by rocks to a col on ridge overlooking Songuta or Adai Khokh glacier. Fine view of the great N.E. face of Adai Khokh with its immense hanging glacier. The ridge to Songuta looking as if it would take several days, descent was made to Ullargh glacier again. Traversing below point 4347, ascent was made to watershed ridge between 4347 and 4294, mostly by steep rock ridges and snow arêtes. Progress slow, much loose rock and large party. One great rock tower only passed with difficulty on W. after defeat by steep hard ice on E. side.

! Summit ridge reached at 1 P.M., 13,370 ft. Turning right or N.E., an ice arête, with just enough snow on it to obviate cutting, led easily to summit of Ullargh, height 14,170 ft. (aneroid). An easier way down a steep snow gully was found for the descent, and, helped by several thousand feet of good glissades, high camp was regained 5.45. Tsaya forest camp, 8.30.

Peak, height 14,400 ft. (?), proposed name The Curtain.

Not ascended. Height of lower peak on ridge ascended, 13,800 ft. (aneroid).—This expedition was for the exploration of the peaks from which the S. Tsaya glacier flows. The only one of these previously climbed is the TRIPLE PEAK of Dott. Vit. Ronchetti (see

* Skatikom on Merzbacher's map, Songuta of Freshfield.

'A.J.' vol. xxiv., p. 218). The peak is unheighted and unnamed on both Merzbacher's and the Russian 1 verst maps. It is not marked on Freshfield's. I estimate its height—eye measurement only—as between 14,400 and 14,500 ft. This peak is a near neighbour of Tshantshachi and looks almost as high. It is mainly a snow peak, while T. is a rock peak. It is marked Mamison on a photograph of Dr. Ronchetti's, but if we take the most usual and convenient way of naming a mountain from the valley it overlooks and the river to which its snow gives birth, then this peak has no claim to the name of Mamison, as it lies entirely outside the Mamison watershed and is almost entirely a Tsaya peak.

Camp was pitched July 16, 1913, on grass slopes above lower icefall of Tsaya glacier, and just below where the great cataract of séracs comes in from the N. branch of the glacier. Height of camp only 9400 ft., but could not get porters any farther.

July 17.—Camp left 1.45 A.M. Descended to glacier, forced right across almost to S. side by enormous crevasses caused by inflow of N. glacier. Crossed back again above to foot of spur separating the N. and C. Tsaya glaciers. This appears as a sharp-pointed tower, for which I propose the name of Woolley's Rock. It is the pivotal point in his panorama taken from the Tsaya glacier. From the foot of the rock a way was found through the second icefall, steep and intricate, but not seriously difficult. 3.30, foot of third icefall, height 10,800 ft.; 4.36, above third icefall, height 11,550 ft. Almost flat circular ice basin above.

The col at head looks very difficult. Turning right, the party attacked the E. peak of the 'Curtain' by a rocky ridge falling from it in a S.E. direction. Just at the point where the ridge steepens and becomes difficult, a cairn was discovered. This was later ascertained to have been built by Dr. Ronchetti's party, who tried to cross the ridge here to gain the N. Tsaya glacier. The ridge is very much towered higher; the rocks are also very rotten in places, and, owing to large number (five) in party, the pace necessarily very slow. Some snow fell and wind got cold. At 2.15, on reaching a lower peak, 13,800 ft., and the E. peak still a long way off, it was felt prudent to turn back. Fine views of the S.E. face and ridge of Adai Khokh, route of first ascent of M. Déchy with Alex. Burgener and J. Ruppen, also partial, of great N. wall of Tshantshachi. Mamison Khokh to the S. shows also a great rock precipice with much dirt-streaked ice couloirs.

Descent was made mostly by same route to Upper Camp, everything packed, and Base Camp regained 9.30 P.M.

MAMISON KHOKH (13,850 ft. aneroid)—Russian 1 verst 1897 S. = 13,279 ft.; Merzbacher $3\frac{1}{2}$ verst 4048 m. = 13,279 ft.; Freshfield 5 verst not marked.

This discrepancy in height is easily explained. The peak is triangulated but not named on the Russian map. Merzbacher on

this occasion has placed the name correctly, as it is the dominating peak of the Mamison glacier, and looks the highest part on the ridge *as seen from the S.* Its continuation northwards, however, is considerably higher, and the height of the N. peak given here is very nearly correct. Mamison Peak was traversed and the peak to the N. ascended by the same party on July 24, 1913. Camp was left 3.30 A.M. It was placed above highest grass below left lateral moraine of Mamison glacier at a height of 9600 ft. Getting on moraine—high ridge—at once it was ascended until close below the rocks of the Triple Peak. Then up the glacier to the S. ridge of Mamison, 11,800 ft. From here the E. face of Tshantschachi looks little less formidable than the N. The opinion of the leader coincided with that of Devouassoud, Freshfield, Moore, and Tucker in 1868; that no explorer's route exists here. Continuing up the ridge, point 1897 on R. 1 verst map was gained at 7, aneroid marking 13,300 ft., 21 ft. higher than the Russian figures equivalent.

After 30 mins. halt and a slight descent, a steep slope was climbed to a narrow summit ridge of almost bare rock, 9.50, which was traversed to the highest point. This almost overhung a precipice of about 2000 ft. overlooking the circular snow basin at the head of the Tsaya S. glacier. The aneroid here gave 13,850 ft. Return was made mostly by the same route, but more direct, and good snow and glissades aided much. Camp was regained at 1.30 P.M.

SARAMAG, 13,800 ft. aneroid; Russian 1 verst map 1970 S. = 13,790 ft.; Merzbacher 3½ verst map 4055 m. = 13,300 ft.; Freshfield 5 verst not marked.

This summit has been reached before, as there is a large cairn on it (Russian surveyors?), but the route is almost certainly new. I could find no record of its ascent before our party went out. Merzbacher is here quite wrong. His height and name are attached to what is merely a lower part of the S. ridge, and on the wrong side of the Saramag glacier.

The same party made the ascent from the same camp from which MAMISON was climbed. The mist and threatening weather of July 24 developed into thunder and heavy rain, which continued the following morning, delaying the start till 5.45 A.M. on 25th.

The right lateral moraine of the glacier, which has very appropriately been called the Western Saramag Glacier by Dr. Ronchetti, was ascended to the top, and the glacier crossed to N. foot of icefall, gained 7.15; height 11,400 ft.

Two hours up icefall and slopes above to col, 12,700 ft. The watershed ridge between Saramag and Mamison valleys was then attacked and gave a good deal of interesting rock work, not easy in places. One or two towers might fairly be called difficult.

The final peak was easy slopes and led up to a boulder-strewn summit with a well-built cairn. A tent platform had been

constructed a few metres lower. It is evident that the peak can be gained from the S.E. side by the Saramag glacier without serious difficulty. Descent was made to the upper part of E. Saramag glacier by a very long and steep snow couloir, snow very good; traversing to col. The left hand of W. Saramag glacier was followed to icefall, and first-rate old snow then led by standing glissades to the moraine. Camp was regained 3 P.M. Weather cold, windy, and misty all day.

TSHANTSHACHI KHOKH (14,500 ft. aneroid) Russian 1 verst map, no name or height, but placed correctly and delineated very well. Merzbacher 3½ verst map, 4420 m. = 14,497 ft.; Freshfield 5 verst 14,063 ft.

The Russian figures of 2071 S. = 14,497 ft. are placed without a name on a snowy peak which Merzbacher has called Tshantschachi in his map. It has no connection with the Tshantschachi glacier and valley, and is Tuilisis. The real mountain lies to the S. on the opposite side of the Tuilisa glacier. It is by far the finest shaped summit in the whole group. It has the form of the 'perfect' mountain, three ridges meeting in a sharp point, and was the summit which excited the admiration of the first British explorers under the name of Adai Khokh. (See Freshfield, 'Exploration of the Caucasus,' also C. C. Tucker's paper in vol. iv. of the 'A.J.' p. 241). It is easy to understand how confusion arose between it and the true Adai Khokh or Vīpata, as I have heard the natives apply the name Adai Khokh to half-a-dozen different summits of the group. It is a generic term like Mont Blanc or Elbrus.

Having seen the vast black cliffs of the N. wall or European side, and the great hanging glaciers of the E. face, the expedition resolved to seek a weakness on the W. High camp was pitched July 28 on rocks above lowest icefall of Tuilisa glacier, height 10,500 ft. 4 A.M. 29th, left bivouac; rain and snow during night, and morning misty and doubtful. The lowest icefall had been explored the previous day, which saved perhaps an hour. It is intricate, but not difficult, easiest on right or S.E. side. Tracks of *mice* showed the bridges. Marten-cat tracks in second icefall. Passed same side 6 A.M. Third icefall harder; crampons very useful. Up centre, inclining to W. or left at top. At summit entered easy sloping snow valley leading up to col below N.W. ridge of T. (Here pass is marked on Merzbacher map, but the real pass—Freshfield's—is three great mountains farther E.) 'Snow bog' here, deep soft snow, letting one in past mid-thigh.

Nine A.M., foot of ice couloir between first rocks on W. face of T. and very steep slope of almost bare ice, leading up to snow col on the very jagged S.W. ridge of the peak.

After passing bergschrund—much cutting even with crampons necessary—the rocks on left were tried, and an overhanging chimney led to a good rock platform. Rocks above too steep and slabby,

so bed of gully was cut up, and open ice-slope above gained through crack in ice of gully wall.

! On this becoming too steep and hard for crampons to hold, the party cut back across to rocks on left. These very steep, but good, though the new snow which covered them rendered it advisable to keep on the crampons. Mounting the W. face by a series of rock ribs and snow-ice arêtes, often very little snow on the ice, the S.W. ridge was at last reached not far from the summit. No farther difficulty was thence experienced to the summit, 3.45 P.M., a narrow rock ridge with a couple of feet of new snow on the top. It was misty, blowing very hard and extremely cold, so only 15 mins. was spent there in building a cairn, fixing flags, &c. 4 P.M., descent was begun by same route. Darkness overtook the party in the ice couloir, and the night was spent on the rock platform above the overhanging chimney, height of over 13,000 ft. The weather was bad, some snow fell, but no serious effects resulted, owing to precautions taken. Starting again at 4 A.M., on the morning of the 30th, the bivouac was regained at 8.30, and after a rest of two hours there, and a meal, Tshantschachi Kasarma, on the Mamison Road, reached at about 1.

Shkara Group.

NUAM QUAM,* aneroid 14,100 ft. W., 14,200 ft. E.; Merzbacher, W. Peak 4250m., E. Peak 4281m., S. peak 3877m.; Freshfield 13,975 ft.

From a camp at 10,100 on débris slope above lower part of N.Q. glacier on W. side, 6 hrs.—a meal and many delays, catching horses, &c. included—above Ushkul.

The tents were carried first on horses, then by the porters or horsemen, but at the steepish rocks by which the snout of the glacier was passed the men struck and absolutely refused to proceed farther. This was 9500 ft. The last 600 had to be done heavily loaded by the Expedition members themselves.

Camp was left 3 A.M. August 9, same party, with exception of Mr. W. G. Johns, who had returned to England.

Crossing the moraine they descended slightly to foot of first icefall. This was very much broken, intricate and difficult.

It was attacked first on right or E. side, but party were forced into centre and then to left at 6 A.M., only getting through by means of tunnels and chasms below huge séracs. Crampons very useful; lot of cutting. Forty minutes through second icefall.

6.40, 12,550 ft. (aneroid).

7.15, mass of seracs on slope, 13,200 ft.

8.10, up steep snow slope to schrund, 13,350 ft.

This was passed by an avalanche bridge. Slope above at first snow at 57°, soon turned to ice at 54°.

* Freshfield's *Nuamkuam*.

A line had been made for the lowest-reaching rib of rock leading up to the arête connecting N.Q. with Shkara some way E. of the lowest col. This arête was gained in 1 hr. 35 mins. from bergschrund. 9.45; lot of cutting, and rocks not quite easy. One hr. 25 mins. along ridge to E., and a rocky top was reached (aneroid 13,980 ft). Here cairn, flags, and record were left. It seems possible that this is the originally triangulated peak, and the aneroid was right. Freshfield gives 13,975 ft. for N.Q. After 40 mins. halt the ridge was continued to E. and two almost equal snowy summits were visited. 12.20, 14,200 ft. by aneroid. These are the highest points on the massif. Fine views of all the great peaks of the central group. Summit was left 1.10 and easy snow slopes descended for about 600 ft. to a snow col, then up again to summit of S. peak, 14,030 ft. aneroid. Over this and down the S. ridge, partly on rocks, partly steep, sticky avalanchy snow. Crampons removed, as they became dangerous from the formation of 'sabots.' A snow col and couloir was then reached overhung on N. by a great beak of rock, visible from many miles down the Ingur Valley. The ridge to S. of this is studded with huge gendarmes. The leader explored the E. face, climbing down between 300 and 400 feet, rocks very steep but good, but could find no way of turning the first tower, and it overhangs badly on the S. Return made to col. Much avalanche and rock traffic down couloir but by 4 sun was off and soon thereafter ceased, 4.5, descent begun, snow on ice thin and bad, and unexpected strips of ice low down rendered glissades inadvisable. Camp was not regained till 8; half an hour from bergschrund across the glacier.

Ushba Group.

USHBA, N.E. PEAK, 15,400 ft. F.—This expedition was unsuccessful, but a height of 14,000 ft. was attained by a route entirely novel, and the party was not stopped by technical difficulties, but by their unanimous refusal to take unjustifiable risks from falling rocks, ice and snow.

The central couloir was, in the leader's opinion, quite too dangerous this season to attempt. An attack on the S. peak by two members of the party, Messrs. Ling and Raeburn, was stopped at 13,400 ft. by tremendous discharges of stones. The 'Untere Schneefeld' of Schultze was a sheet of bare ice, almost ceaselessly swept. Leaving a camp under the left moraine of Gulba glacier, height 9200 ft., at 4.15 A.M. on August 15, Messrs. W. N. Ling, R. Martinson, and H. Raeburn walked up the little glacier under the S. ridge of Gulba to the lowest col.

Six tür seen here, height 10,550 ft. Down broken rocks and a steep snow couloir to W. Chalaat glacier, 9300 ft., at 6.30. Up glacier. It took four hours to work through steep and very much shattered icefall and reach the rocks at the foot of the E. face, height 10,450 ft., time 10.30. The rest of the day, apart from halts,

was spent ascending this face by rocks, generally good, and by snow-ice arêtes, generally bad. The face is very steep; just below the snowcap of the summit the rock is as nearly as possible vertical for over 1000 ft., falling stones flew far over the heads of the party.

At 5 P.M. a good gîte on a well-overhung ledge was found, height just 13,000 ft. Even here the after eddy from the wind produced by the great avalanches down the couloir just ahead reached the party, almost carried away their hats, and sprinkled them with chilly snow-dust.

Leaving the gîte at 4.45 A.M. on 16th, the couloir was descended into and crossed, nothing now falling. Progress directly upwards being impossible on account of the vertical wall, the route followed led slanting to N. along its base, the nature of the climbing only permitting one man to move at a time. About 9 o'clock 14,000 ft. was reached. Here the narrow crack across the slabs vanished in the face. It was just possible to descend from here into a great ice couloir. On the far side of this could be seen the comparatively easy angled edge of the icecap of the summit, and the ice-chimneys leading up to this, though very steep, were evidently possible. The party watched, debated the matter for an hour—and then turned back. The almost incessant falls of snow, ice, and stones down the couloir rendered the risk too great. Owing to the great care required to be taken on the descent, the pace was very slow and the glacier was not regained till 7.45 P.M. The very difficult icefall was successfully descended without lanterns—a splendid moon.

The pull of 1300 ft. up to the Gulba col was not done fast, as the party were all decidedly tired. It was gained at 2.20 to 2.30 by the various units. Leaving the col at 2.35, tent was regained in twenty-five minutes at 3 A.M. on the morning of the 17th.

VARIOUS EXPEDITIONS IN 1913.

Mont Blanc Group.

L'INNOMINATA (3717 m. = 12,192 ft.), BY THE W. FACE.—On Wednesday, July 15, 1913, Messrs. S. L. Courtauld and E. G. Oliver with Adolf Aufdenblatten left the Gamba Hut at 4 A.M., following the ordinary route up the Brouillard Glacier towards the Col de Fresnay.

When almost opposite the top of the Innominata they turned to the right and crossed without much difficulty two bergschrunds, breakfasting on some rocks on the face of the peak just above the second bergschrund ($3\frac{1}{2}$ hrs. from the hut).

From here the ascent proceeded directly up the steep face which was at first partly rock and partly snow. Towards the top there was ice covered with loose snow and the ascent finished with about thirty steps in ice, the party arriving directly on the summit (5 hrs. from the hut, $1\frac{1}{2}$ hr. from the breakfast place).

Owing to fog and snowstorm the descent was made by the same route and occupied three hours to the hut. The times include halts.

This route is not particularly difficult, though in a fine summer there would probably be more ice and the bergschrunds might be troublesome. It is indicated in the new O.A.C. Mont Blanc Führer, page 69, route 184, but the previous ascent seems to have started from near the Col de Fresnay.

[The face is well shown in the splendid monograph 'Il versante italiano del M. Bianco' (Boll. xxxv. 184) by the brothers Gugliermi, F. Mondini and E. Canzio].

Pennines.

DENT D'HÉRENS (4180 m. = 13,715 ft.)—TRAVERSE; up W. arête, down S. face direct from summit by rock ribs and snow to Col des Grandes Murailles, descent to Glacier du Mont Tabor and Breuil. Herren V. von Leyden and R. Richter with Peter Almer of Grindelwald and Antoine Maquignaz of Val Tournanche, August 17, 1913.

'The W. arête was in fairly good condition, although we found it glazed in some places, and a party of eleven guideless Italians whom we met at the Aosta Club hut had tried it in vain the day before. The snow on the S. face was very bad, and we were very glad to make use of the spare rope at two places. We just succeeded in getting through the upper séracs of the glacier du Mont Tabor before dark. Two passages were decidedly dangerous; one a longish traverse under some séracs [rather like the one on the Nantillons glacier] and the other one [lower down] a narrow couloir between some rocks on one side and a steep ice-wall on the other, a likely place for falling stones, also threatened by some very unpleasant-looking séracs high up. We met with ice at the top of the couloir, but soon got on to snow again. The *actual* danger was not great, I believe, as the sun had gone down some time before and the night was cold. In fact we neither heard nor saw any ice or snow coming down. Almer afterwards said that it would be possible to avoid the dangerous places by keeping well to the right, W., on the upper plateau. He is probably right. We came down much further to the left, E., rather in the middle of the glacier. After passing through the upper séracs we were brought to a halt by the fact that the lower part of the glacier was cut off and dropped down in several (5) terraces with almost perpendicular walls. It was very dark by then—the moon not yet risen—and we made use of the spare rope again for the descent of each of the five walls. When re-examining the place next day on the way to the Théodule, we were unable to fix on a better place for the descent through the lower séracs, than the one chosen the day before.

'As the traverse of the Dent d'Hérens by this route appears to be very rarely accomplished, I venture to send you the above details.'

VICTOR VON LEYDEN.

ALPINE NOTES.

'BALL'S ALPINE GUIDE.' VOL. I. 'THE WESTERN ALPS.'—Copies of the new edition (1898) of this work, price 12s. net, can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART I.—A new edition (1907) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of A. V. Valentine-Richards, Fellow of Christ's College, Cambridge, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes those portions of Switzerland to the N. of the Rhône and Rhine valleys. Price 6s. 6d.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART II.—A new edition (1911) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of the Rev. George Broke, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes 'those Alpine portions of Switzerland, Italy, and Austria, which lie S. and E. of the Rhône and Rhine, S. of the Arlberg, and W. of the Adige.' Price 7s. 6d.

THE ALPINE CLUB OBITUARY.—Arkle, R. N. (1887). Cullinan, Sir F. F., K.C.B. (1877). Cust, Sir Reginald (1884). Heathcote, C. G. (1863). Maude, W. (1890). Morshead, F. (1861).

FLIGHT OVER MONT BLANC.—M. Parmelin, a pilot of the Deperdussin flying school at Rheims, left Geneva at 1.39 on the afternoon of February 12 and passed over the summit of Mont Blanc at a height of about 17,700 feet, the cold being intense and the wind terrific notwithstanding a brilliantly blue sky. Owing to fog, he was compelled to land at 3.15 P.M. at Aosta.

THE WINTER IN COURMAYEUR.—'Wonderful weather: bright sun with frost, but next to no snow. Least snowy year anybody here has known. The sheep are still grazing at heights of 9000–10,000 feet. Two regiments have been up here for the last four weeks for ski practice; as yet they have had practically none!' (Feb. 11.)

THE DRAINAGE OF THE ENGELBERG VALLEY.—We have received the following from Mr. C. Comyns Tucker:

'I do not find in the latest edition of "Ball's Guide," or in any

other English guide-book which I have had the opportunity of consulting, any notice of an interesting natural feature in the drainage of the Engelberg Valley.

'About ten minutes' walk along the path leading to the Horbisthal and just at the junction of that valley with the main valley of Engelberg, a bridge is reached crossing a powerful torrent which at first sight seems to represent the stream from the Horbisthal. A closer inspection, however, shows the latter stream to contribute an insignificant part only of the water that flows under the bridge, the far larger part being supplied by a tumultuous torrent falling into it from the N.W. about 100 yards above the bridge. This stream does not correspond with any definite valley or opening in the hills behind it, and on being followed upwards for some four or five hundred yards is in fact found to issue from the face of the grassy Alp in some dozen or so of splendid springs, ranged in a rough semicircle of about 100 yards in diameter and uniting themselves into a single stream within 30 or 40 yards. This drainage outlet, if not so romantic in its surroundings as the source of the Barada in the Lebanon or the powerful stream which issues from the tableland of the Sette Comuni at Oliero, is, I think, sufficiently curious to merit a notice in a guide-book or to justify a short half-hour's walk from the Engelberg hotels.

'At a guess this stream, which I conceive to represent the drainage of the Planken Alp nearly due N. of Engelberg, supplies one half of the total volume of the Engelberger Aa.'

C. COMYNS TUCKER.

COLLE DEI RONCHI.—This little pass, mentioned under 'New Expeditions in 1913' in 'A.J.' vol. xxvii. p. 434, was first crossed (from W. to E.) on September 8, 1911, by SS. P. Vigino and V. Paglieri (see 'Rivista Mensile del C.A.I.' for 1912, p. 116) who gave it the name of *Bocchetta dei Ronchi*, by which name, of course, it will in future be known. The same travellers also ascended the southern Punta di Val Soera, which is separated from the Punta di Val Soera (climbed by Messrs. Irving and Tyndale in 1912) by the depression of the Bocchetta dei Ronchi.

DR. GUIDO MAYER'S ASCENT OF THE AIG. DU PLAN ('A.J.' xxvii. 441).—The upper part of the S.E. arête followed is shown in a photo in 'Echo des Alpes,' 1910, p. 172, and the point 3607 referred to by Dr. Mayer is shown in a photo p. 167 of the same.

THE FIRST ASCENT OF THE FINSTERAARHORN, 'A.J.' xxvii. 263-300. Sir Martin Conway writes to Captain Farrar as follows:

'There is an important point you have not referred to. At the end of paragraph 14 the men are reported to have said that the sun was *reflected* from the surface of the Lake of Thun. This was at 4 P.M. The lake is roughly W.N.W. from the peak. The

sun would not, therefore, be seen reflected from its surface till much later in the day. A simple calculation would show at what hour on August 16, but certainly after 6 p.m. Hence this detail is untrue.

'I quite agree with what you say about Meyer's style of writing about mountains. There was nothing like it for clearness and accuracy for almost fifty years.'

KILIMANDJARO.—It is interesting to read that even this far-away peak has its club huts. Dr. Förster, a planter, runs an hotel at Alt-Moschi, and has built a hut, the Bismarck-Haus, at an altitude of 2800 m., and a second hut the Dr. Karl-Peters-Haus at an altitude of 4200 m. on the plateau between Kibo and Mawensi. He proposes, if any assistance is forthcoming, to build two other huts, one for each of the peaks, at an altitude of about 5000 m. The ascent is described as of great interest. From the port Tanga a railway leads in about fifteen hours to Neu-Moschi about 800 m. From here the glacier-covered Kibo 6020 m., the highest peak of Kilimandjaro, and, to the eastward, the precipitous rock peak of Mawensi 5560 m. are in full view—an imposing sight.

Alt-Moschi which lies very well at an altitude of about 1100 m. is two hours beyond Neu-Moschi and Dr. Förster's hotel is described as very comfortable.

The other distances are as follows :

Alt-Moschi to Marango where Dr. Förster also runs a rest-house, five hours.

To the Bismarck-Haus, four and a half hours. From here the highest point of the Bismarck crater can be reached in about half an hour, whence the view is very fine.

To the Dr. Karl-Peters-Haus, five hours.

The mountain itself offers no great difficulties.

§ The through line to Lake Tanjanika is expected to be open this summer, which will facilitate the visit to other ranges such as the Uluguru mountains.

Travelling in the interior is described as scarcely more expensive than in Central Europe, and game is stated to be very plentiful.—*Mitteilungen des D. u. Oe. A.-V.*

NEW HUTS IN THE ENGADINE: CHRISTIAN KLUCKER'S WORK.—The new hut on the Crast' Agüzza Sattel, altitude about 3600m., has now been completed. It is the property of the Sezione Valtellinese of the C.A.I. The installation, owing to the bad weather of last summer, was a very arduous undertaking.

The supervision of the work was placed in the capable hands of our old friend, Christian Klucker. His services were also requisitioned to supervise the reconstruction of the Boval inn which, it will be remembered, had been destroyed by an avalanche. It is, no doubt, in some measure due to the intense energy of the man that

it was completed in an incredibly short time, and was ready for the season. At the same time he superintended the rebuilding of the old Boval Hut, of the Raschèr Hut at the E. foot of Piz Kesch, of the Mortèl Hut, and of the additions to the Tschierwa Hut.

Klucker has renounced guiding, and occupies himself mainly with the care of the botanical garden at Sils. His univalued mountaineering experience is, however, frequently drawn on for the instruction expeditions of guide candidates. No man is more qualified, whether in respect of his splendid record of work or of his great force of character, to be a sound instructor of the men who may follow in his footsteps, but who can scarcely hope to rival, still less to surpass, those great deeds of his, which will always remain the admiration and wonder of his contemporaries.

It is interesting to note the channels into which some of the energies of this great mountaineer are directed, and his continuing services to mountaineering. Men who knew him well in the heyday of his splendid powers still hold that a better man on a mountain or a more all-round accomplished mountaineer they never saw.

May the great little man long survive to greet his old friends with those piercing eyes that have scarce lost any of their keenness, and to offer that mighty right hand that has tamed full many a defiant peak. No stouter heart or more dauntless spirit ever lived. *Prosit, zum Neujahr, unser Unfehlbarer !*

NEW HUT IN THE MONT BLANC GROUP.—We understand from 'R.M.' [1913, p. 368] that Signor Cesare Gamba encouraged by the great success which has attended the construction of the new hut bearing his name, situated in the basin of L'Innominata, has generously promised to build another hut in the same district. The position of this hut will be in the Aiguilles de Trélatête group, close to the Col d'Estellette on a buttress running in the direction of the Aiguille des Glaciers. The construction is said to have already been begun.

The Gamba Hut, which has been presented to the Courmayeur guides, is already, next to the Rifugio Torino, the most visited of all huts in the Courmayeur district.

DIE SCHUTZHÜTTEN DER SCHWEIZERALPEN IM WINTER.—Herr Karl Egger, the well-known member of the A.A.C.Z., has compiled a very useful pamphlet giving, in some twenty pages, short particulars of various Club huts from a winter point of view. He is very careful to warn where possible danger of avalanches exists, and to state explicitly that the mere passing of the usual ski-test is not sufficient to warrant a man's undertaking expeditions which the huts facilitate, but most of which ought only to be undertaken by men with previous experience, more particularly of mountain expeditions in winter.

THE JAMTHAL HÜTTE at the edge of the splendid glacier cirque

forming the head of the Jamtal has now been rebuilt and may almost be called an hotel. It is the property of the Section Schwaben.

NEW REGULATIONS OF THE S.A.C.—At the general meeting held in November last it was resolved that all members should be compulsorily insured and the Club authorities have accordingly entered into contracts with four Swiss Assurance Companies. The premium payable by each member is 1 fr., and the amount assured is 5000 fr. (£200). The resolution was only carried by a small majority after very extensive discussion.

Many of the sections—the Uto section among others—require a payment of 2 fr. from each of their members to form a fund for the building of new huts.

These various amounts bring the total subscription to the S.A.C. to the very modest sum of 20 fr. For this sum the member receives the annual 'Jahrbuch' and the bi-monthly 'Alpina,' gets many reductions on the various railways, and what is more important to regular climbers, is *entitled* to the use of the huts. The courteous practice of the S.A.C. all these years past, to extend to all and sundry the use of the Club huts, may have to be reconsidered in view of the great increase in the number of travellers. It has become quite a practice for large co-operative parties of tourists, including English, to make use of the Club huts as very convenient and essentially cheap inns. This leads to much overcrowding and discomfort to members of the S.A.C., and it would not appear at all unreasonable or discourteous if in the very near future the great hut-building Clubs find themselves compelled to limit the use of their huts to their own members and those of affiliated clubs, at whose expense and for whose benefit the Club huts have been built. In this manner they would increase their membership, and it might reasonably be expected that this would lead to a stricter control and consequent better observation of the very proper regulations that have been laid down for the use of the huts.

AN ANCIENT MONASTERY ON KASBEK.—Dr. Vittorio Ronchetti, the Caucasian authority, recounts in the November number of the 'R.M.' a most interesting verification of an old legend. On the S.E. slopes of Kasbek, near the snout of the Ghergheli Glacier, at a height of c. 2438 m., there are several ancient crosses, the construction of which is traditionally attributed to St. Nina. The Saints are supposed to have come down the heights above to pray there during the night. This legend is apparently founded on fact. In the course of last year (1912), a gentleman named A. L. Dukowsky of the Russian Alpine Club with the local guide, J. Besurtanow, noted that certain old monastic buildings exist at a height of about 3962 m. (= 13,000 ft.), amidst a vast mass of mountain débris. Wishing to confirm their previous observations, the party set out again on July 26 (July 12, o.s.), 1913; after a long march over ground

which the height rendered far from easy, they found indubitable evidence of the presence of six ancient habitations as also the traces of a church crowned with a cross. Wooden portions of the structure were even visible in the remains. There is talk of an antiquarian expedition to explore and photograph this very interesting discovery.

DR. THÉODORE THOMAS of Paris, the well-known French mountaineer, visited the Caucasus during last summer. He made the ascent of Kasbek, and visited the Elbruz Glacier, but no serious mountaineering was attempted. The journey extended into Persia.

THE PRESIDENT OF THE SECTION AMPEZZO OF THE D. U. OE. A.-V. (Herr FRITZ TERSCHAK) has requested the insertion of the following note :

On August 15 Mr. H. Wood, on account of the 25th anniversary of his first visit to Cortina, was kind enough to invite the nine eldest guides to luncheon. They want to thank Mr. Wood warmly for his great kindness, and are eager to tell him how thoroughly and highly they appreciate the honour of his invitation. And finally they express their desire to see Mr. Wood back in Cortina again for many years to come.

MANSUETO BARBARIA.	ANTONIO DIMAI.
ALESSANDRO LACEDELLI.	LUIGI MENARDI.
GIOVANNI BARBARIA.	SIMONE GHEDINA.
GIUSEPPE COLLI.	TOBIA MENARDI.
ARCANGELO DIBONA.	

THE JUBILEE OF THE S.A.C. was celebrated in September last at Lucerne by three days' festivities. The formal business included the election of a new President, Dr. Janggen, and of several hon. members, including Dr. Dübi and M. Gallet. The second day was taken up principally with a great banquet in the Kursaal, at which about nine hundred members sat down. Several very patriotic and enthusiastic speeches were delivered, and the function passed off with great *éclat*. The S.A.C. had invited the attendance of delegates from the principal mountaineering clubs, and the Chairman, speaking for the moment in English, was kind enough to express in very cordial terms the satisfaction of the S.A.C. to welcome at its Jubilee celebration the representative (Captain Farrar) of the oldest of Alpine Clubs.

The thanks of the foreign delegates were kindly taken as delivered, as the acoustic properties of the room and the growing enthusiasm of the festivities made hearing impossible as the day progressed.

The third day was spent, by the more valiant clubbists, in a traverse, in pouring rain, of Pilatus.

THE JUBILEE OF THE ITALIAN ALPINE CLUB was celebrated at Turin by a congress and various other functions extending from September 5 to 12. Parties of members visited the source of the Po and made the ascent of Monte Viso and of the Grand Paradis, and on September 12 a largely attended pilgrimage was made to the tomb of Quintino Sella at Oropa, the well-known statesman and founder of the Club.

At the banquet which is not the least important part of a congress the principal Foreign Alpine Clubs were represented by delegates, our own Club being worthily represented by Mr. J. E. C. Eaton, whose eloquent speech in Italian was listened to with great approval. At no period of its existence has the Italian Alpine Club shown more enthusiasm and energy than at present, and it may rest assured of the very sympathetic attitude towards it of our own Club.

AN ASCENT OF FUJI-YAMA.—The following is an extract from a letter written by Mr. Douglas Baker.

‘I left Yokohama on *Saturday, August 23*, for Hakone, a little place in the mountains. After about two hours in the train I got out, left my trunk at the station and proceeded by tramcar for another hour and a half chiefly uphill. I then got out and walked the rest of the way, a coolie carrying my suit-case. It is not exactly a convenient thing to take to the mountains, but it was all I had; after about four hours’ walk uphill I arrived at my destination, a Japanese hotel, but one accommodating foreigners also, that is to say, one could sleep on a bed and not lie on the floor. This hotel was on the side of a lake, and some Yokohama people were staying there—it was a very pretty little place, and I got some good photos around.

‘On *Tuesday 26th* I left in the rain for a place called Miyanoshita, hoping it would clear up. I walked to this place over a high mountain pass called Ojigoku, which being interpreted is ‘Big Hell.’ This is a most extraordinary place—an utterly desolate spot with sulphur springs bubbling up everywhere, and the most potent stink imaginable—a sort of glorified chemical laboratory; strange to say in this very unpleasant place there is a tea house, a cheerless sort of place to live in. Near here there were hot-water springs, some of which were tapped to provide water to an hotel in the valley below. I eventually reached Miyanoshita about 4 P.M. thoroughly wet through, but after a hot bath I felt quite all right.

‘*Wednesday*.—I had intended leaving Miyanoshita for Gotemba near Fuji-yama, but was unable to make a start as a typhoon raged all day.

‘*Thursday*.—It cleared up overnight, and so I left for Gotemba with a coolie. This was a very good walk over a high mountain pass called Otome-tonge. On the way up the valley the effects of the typhoon were very evident. Several bridges had been carried away, and the road was blocked in numerous places by fallen rocks that had been washed down from above.

' My idea in visiting Gotemba was either to go up Fuji or to make a partial circuit of it, going down some rapids amongst other things. After the typhoon I thought the rapids might be too dangerous, so gave up the idea of that trip. I thought that I might just catch Fuji on a fine day and so decided to make the attempt. I was nearly dissuaded from Fuji at Miyanoshita because three people in the hotel had been up, and they were rather knocked up one way or another, one had a touch of malaria. However, I decided to go. Gotemba was the nearest point to Fuji on the railway line, and so I had my trunk sent up there from its last resting place. I arrived at Gotemba about 3 P.M. and, having ascertained that my trunk had arrived, proceeded by a funny little horse tram (running twice a day) to a place called Subashiri. There was a Japanese inn here at which I spent the night. Luckily I still had some foreign food left over from lunch which I had brought from Miyanoshita, and so did not have to partake of the Japanese relishes consisting of rice and all sorts of extraordinary vegetables.

' I retired to rest after giving orders to the coolie to wake me at 2 A.M.

' *Friday.*—I slept pretty well and the coolie woke me all right; poor fellow, he had had a most unpleasant time—"no slip—fleas" was what he said. I was very lucky to bring along the coolie from Miyanoshita, as he could understand and speak a few words of English, and I should have been badly off without him. I bargained with him before starting to pay five yen (10s.) for the two days, which is pretty cheap. I gave him another yen in the end because he was such a cheery fellow. I had decided to go up Fuji and return to Gotemba in the one day. I did not want to run the risk of a night on the mountain in one of the rest houses where there are animals galore and only Japanese food. It is usual to take two days over it. We started off at 3 A.M. and made the summit in $7\frac{1}{2}$ hrs., which was pretty quick going considering that Fuji is 12,400 odd feet and Subashiri not more than 2520 ft.; after the first $2\frac{1}{2}$ hrs. the ascent was on a very rugged path of volcanic rocks, exasperating stuff to go up hill on, as it has a tendency to give way under one. We nearly lost the path in places, and would have done so altogether if it were not for the cast-off straw sandals that the pilgrims throw away as they get worn through. I wore nail-less boots, having left my climbing boots in Canada, but I put on the straw sandals over my boots until I had worn two pairs through.

' Fuji is an enormous mountain, rising as it does right out of the plain, but it is a most uninteresting one to climb and is nothing more than a fearful grind. I took several pictures during the ascent. The crater at the top is of great size, having a diameter of 2630 ft., and depth 450 ft., according to the guide book. It was decidedly cold on the top, but the sun was very hot, as we could verify, having had it on our backs for several hours. There was

very little snow on the top at the time, but big patches of it here and there. We descended a different way going back to Gotemba, to which place I had told the hotel proprietor to send down my bag. Gotemba was farther than Subashiri, being thirteen miles to the top instead of about nine, but the going was very easy, in the volcanic rock, our boots sinking in comfortably (I have called it volcanic rock, but it was loose volcanic stones rather like coke in nature, but of a reddish colour); under these circumstances we found running the easiest method of descending. We got back to Gotemba in a little over five hours, and I spent the night there in another Japanese inn; but here they catered for foreigners as they provided me with a table, I also had a good meal of ham and eggs, which was satisfactory after two days of approximate starvation. At the coolie's suggestion I had a leg massage after the efforts of the day, for which I paid thirty sen (about 7d.), which is fairly cheap.

'Saturday 30th.—I left Gotemba at 10 A.M. and went by slow train to a place called Shidzuoka, and there picked up an express to Kioto, at which I arrived at 7.30 P.M.'

A VETERAN NOVICE.—This winter the well-known old guide, Blanc le Greffier, of Bonneval-sur-Arc, made his first attempt at skiing most successfully. Last summer at the age of seventy-two he led in the traverse of the Ecrins. He was the only professional in a party of five, and ascended by a route which was a variant of his own devising.

ERRATUM.—'A.J.' vol. xxvii. p. 344, line 24, for 'Sulden' read 'Fend.'

REVIEWS AND NOTICES.

Sport in Art: 'An Iconography of Sport during Four Hundred Years from the Beginning of the Fifteenth to the End of the Eighteenth Century. By William A. Baillie-Grohman, author of 'Sport in the Alps,' 'The Master of Game,' &c., &c. London: Ballantyne & Co., Ltd. Large 8vo., pp. 422. Illustrations 243. Price £2 2s. net.

As a skilful and intrepid mountaineer, a pioneer in distant lands, a first-class big-game shot, an historian of the beautiful land of Tyrol he loves so well, and as one of the greatest exponents of the difficult art of chamois-hunting, Mr. Baillie-Grohman is well known to us. By that superb reproduction 'The Master of Game' he has shown himself to be one of the chief living authorities on the ancient art of venery; and in this fascinating volume on 'Sport in Art' we have presented to us the history of sport during 400 years, both pictorially, and in writing which reveals to us the

researcher in ancient lore, the scholar, and the enthusiast. Mr. Baillie-Grohman possesses what is probably the finest collection of sporting (used in the mediæval acceptance of the word) prints in existence. They number over 3000, and we have been privileged to see many of them. From this collection, 243, some coloured, have been selected by him, with much judgment, and we venture to say with considerable restraint, for the purposes of this work.

In connexion with it, we think the word 'review' is incorrect, for it is impossible adequately to deal within the limits of our space with all the interesting points, to express its charm, and to do justice to the labour which the author has expended upon the book. Those, however, who take it up will not be satisfied until they have read each page. To the lover of history, the scrupulous accuracy as to fact and fidelity in reference will appeal, and the text and footnotes bear evidence of the author's long and painstaking researches. In effect the book is not only 'Sport in Art' but the History of Sport as illustrated by the best artists of each period. As an historian Mr. Baillie-Grohman excels, because he does not content himself merely with dry facts, but he gives such details that we are enabled to visualise the personalities of his heroes; and we appreciate the restless energy of the versatile Maximilian I. of Austria, and the comparatively low standard of life prevailing in the minor Courts of Germany during the stagnant seventeenth and eighteenth centuries.

In the preface it is distinctly stated that the work does not deal with athletics, but it gives 'the story of the evolutions which hunting, shooting, falconry, and fishing underwent during the last 400 years. . . . And the first pictorial descriptions of mountain climbing have been included in the last chapters.' In the opening one, the psychological aspect of sport, which has tormented the minds of many humane persons, who cannot resist the allurements of hunting and shooting, is presented to us in a new guise, which may go far to soothe their qualms. Originally, man, a pigmy, timid and fearful was not 'the hunter, but the hunted'; and doubtless he was a very toothsome morsel to grotesque beasts of the Saurian type. He gradually discovered means of self-protection and then of aggression. And it may be that man is still paying off old scores, and the debt is not yet cancelled. Apart from this conjecture, sport and its pictorial representations receive at the hands of the author a most ample vindication and able appreciation of their value on p. 4.

In the Middle Ages, the great ones of the earth had two pursuits, war and the chase, and the afforestation of Europe was so dense as to give full scope to the latter. Nevertheless, we are astounded at the colossal size of some of the 'bags.' Maximilian's record is not so great as some of the seventeenth century. He prided himself on his marksmanship and on quality rather than quantity. Thus

his 'Secret Book of the Chase' records that he killed 100 wild-duck with 104 shots, and bagged with one and the same cross-bow bolt twenty-six hares without missing. Later sportsmen, notably the Electors of Saxony, John George I. and II., have left records of their enormous 'bags.' They claim to have killed 110,530 deer, 54,200 wild boar, 6067 wolves, 477 bears, and of small game proportionate hecatombs, and a part of this number whilst the Thirty Years' War was raging. If we can believe their statistics, and there is no reason to the contrary, the size and weight of wild beasts must have decreased, for we read of boars of 550 and 700 lb. and of a stag of sixty-six points and weighing 59 st. 9 lb. However, the present-day sportsmen of the honest sort find quite enough to satisfy their energies, and the father of a friend of the reviewer killed a boar of 400 lb. in the Ardennes, thirty years ago. The establishments which were maintained for the colossal slaughter of the Middle Ages were proportionate, and we read that in Gaston de Foix' kennels there were 1600 hounds. Into the vexed question of the identity of that extinct animal, the aurochs, the author goes at considerable length, and he shows clearly that it was structurally different from the European bison, and that the last aurochs died, as far as is known, in 1627. The habit of persistent and careful research on the author's part was rewarded by his discovery of the long lost 'Gjaidbuch' or 'Hunting-Book,' belonging to the Emperor Maximilian. It seems to have disappeared for over 300 years, and was found by Mr. Baillie-Grohman in the Burgundian Library at Brussels. As he modestly writes 'A glance at its pages, and more particularly at the finely executed illuminations illustrative of sporting scenes, thrust upon me the pleasurable conviction that I was holding in my hands the long lost original.'

Several early Alpine prints find a place, and we ought to treasure these, also those others by such an artist in woodcut as Edward Whymper, because we fear that in these days of the fatally facile snap-shot photograph, the arts of pictorial representation on wood and steel are doomed to disappear.

We have been at some pains to note a few of the interesting and important statements, because we feel that by doing so we are better able to convey some idea of the scope and object of this book; and we must confess to a want of ability in descriptive and epithetic phraseology, such as would convey to the reader all the pleasure and delight we have experienced in reading it.

Finally, with all respect, we would venture upon a suggestion—namely, that means may be found whereby a portion of the author's valuable and unique collection of sporting prints may become available for inspection and examination by members of the Club, and serve as an iconographical study of subjects, cognate to the sphere of its own activities.

A. H. TUBBY.

Inscriptions from Swiss Chalets. By Walter Larden. With 52 illustrations reproduced from photographs. Printed for the author by Horace Hart, at the University Press, Oxford. 1913.

Readers of this JOURNAL and English readers in general are already well aware of the merits of Mr. Larden's newest book, defined by the author in the sub-title as a collection of inscriptions found 'outside and inside Swiss chalets, storehouses, and sheds.' A carefully selected choice of such inscriptions, all taken in the Upper Lötschenthal, together with ten illustrations, were printed in the ALPINE JOURNAL, August 1912. About thirty specimens, mainly from the Bernese Oberland (Kandersteg, Adelboden, Saanen, Grindelwald), a few ones from Binn and Avers, had been given us before, without illustrations, in the same author's 'Recollections of an Old Mountaineer,' chapter xvii. In this book, that was issued in 1910, the author tells us that he began collecting House-inscriptions in 1899; but it was not until 1907-1908 that he set about it in earnest, the leisure he then had, and the discovery of the enormous advantages gained by using binoculars, causing the work to advance much more rapidly and satisfactorily. In 1911 he sought to make his work more complete by the aid of photography. When he published his article in the ALPINE JOURNAL, August 1912, his work in collecting and deciphering inscriptions carved outside and inside Swiss chalets and other wooden buildings had resulted in a fairly large illustrated collection, which he hoped to persuade some publisher to convert into a book. Fears that the public interested in such a subject would be but a small one for some time prevented anyone from making the venture. But the interest shown by all connoisseurs of Swiss folklore, who had an opportunity of seeing specimens of the collection, together with the assurance given to the author by Professor Hoffmann-Krayer, editor of the 'Swiss Folklore Journal,' that 'there does not exist any important collection of Swiss House-inscriptions' and that such a publication as the one proposed would be very welcome in Switzerland and elsewhere, added so much to the increasing fascination the author had found in his pursuit since 1907 that he endeavoured in 1913 to bring out his book despite all hesitations of a commercial nature, being fired by the apprehension that the still existing stock of such inscriptions may get lost by fire or water, the fire destroying the wooden buildings, the water being used by the inhabitants for furbishing-up their house-faces and so 'cleaning-away' the inscriptions. The increasing habit of pulling down the older houses or modernising them is also an enemy much to fear in our days of so-called progress.

So really Mr. Larden need not apologise for publishing his collection, and he is only too modest in the preface of his 1913 book. As I had an occasion to see him at work, copying, deciphering, photographing House-inscriptions at Saas-Fee in 1912, I can testify that in all these departments the author had to rely almost entirely on

himself, and the poor help I could give him *in situ* enables me to subscribe to his conclusion—‘that practice is a more valuable asset than is a greater knowledge of German or even of dialect.’ But this practice had to be won by a great deal of patience and mental and even bodily exertion. I remember seeing Larden perched on some unstable bundles of firewood piled up before a chalet at Lomatten, near Saas-Fee, trying to decipher by touching them with the tips of his fingers some specially weather-worn letters. And hear what in the ‘Introduction’ he says of his method of reading such delicate things as the inscription outside the ‘Moschegg’ House near Gstaad: ‘The first point was to note at what time in the day the position of the sun was favourable and to go then. The lines, long and short, were then mapped out in the notebook, and all words and letters that could be read at once were inserted in their proper places; and a cross was put for each doubtful letter. Gradually words began to stand out, and sense began to evolve itself. Sometimes the incomplete record in the notebook had to be studied in the evening with a view to clearing up difficulties.’

After the deciphering came the even more difficult task of translation. From the beginning of his collecting work Mr. Larden had in view English readers, and for their benefit, as early as 1910, he added translations as well as explanations to the texts of the German and Latin inscriptions inserted in chapter xvii. of the ‘Recollections of an Old Mountaineer.’ As he continued to do so in his article of 1912 and in his book of 1913, I may as well characterise the comment given to the first publication, the notes added concerned the localities where the inscriptions had been found, the state of preservation, the characters used, the arrangement of the lines or verses, the spelling of the names, the functions of the persons named. In determining such words as *Wandknecht*, *Hausmeister*, *Werkmeister*, Mr. Larden had again to go his own way by comparison and induction, as even educated Swiss could not always help him. But by-and-by, consulting the villagers and some Swiss authorities, comparing inscriptions from different localities and ages, Mr. Larden worked out quite a system of these denominations, and in his 1913 book he was able to describe in detail the functions of the persons named and the work they did in house-building. We learn to distinguish between the *Zimmermeister*, i.e. the master-carpenter and architect of wooden chalets, and the *Zimmerman* or carpenter, and to discern the former from the *Baumeister* or (in some cases) the *Werkmeister* who undertook both woodwork and stonework. We learn that the *Wandknecht* was the skilled labourer who fitted together the already prepared beams. It is essential also, explains Mr. Larden, to keep well in mind that when a man is said to have *gebauen* or *lassen bauen* a house, he is the owner, at the order and expense of whom the chalet was built by another, who is occasionally said to have *gemacht*

or *gemeistert* it. It is really marvellous how Mr. Larden, as a stranger, managed to go through these very intricate questions of ownership, handicraft, &c., although he could not get much help from the Swiss themselves. For 'even when they felt sure of the meaning of a word, the meaning they gave might be a more modern one and fail to fit in with the context of the inscription in which it occurred.' The result of his labours in this department adds much to our (the Swiss) knowledge of these things, and further studies in this field must be measured by Mr. Larden's standard work.

Now for the translations. Here one is even more surprised to find how much progress Mr. Larden, an Englishman, who 'taught himself such German as he knows,' has made since he, in 1910, began teaching his countrymen to understand Swiss House-inscriptions by explaining and translating them in English. It was also very thoughtful of the author to keep to the *Nibelunge Nôt* in order to interpret the real meaning of some older inscriptions, especially those from the Lötschenthal. In fact their language and spelling come in some way nearer to medieval poetry than to modern High German. It was also wise to give occasionally to the paraphrase the form and spelling used in English bibles and prayer-books. So inscriptions from the seventeenth and eighteenth centuries retain even in translation their antique flavour and scent. A careful comparison of the context and translation will show in most cases that Mr. Larden, who had to rely in the main upon himself, did sufficiently good work in this department also. Of course there are some mistakes and inaccuracies, not to be wondered at; to quote the author's excuse in the author's words: 'The ground is treacherous and difficult for the solitary traveller, especially when it is strange to him.' I know by my own experience, having discussed one or other of these German inscriptions and secured the opinion of other Swiss scholars, that sometimes it is really not possible to find out the real meaning of a phrase or a verse, as the grammatical form will allow two interpretations equally probable. Taken all in all, English readers may with confidence, keeping well in mind the explanations given in the preface and introduction to Part I. of the book, trust the accuracy of Mr. Larden's translations. They may even try to learn some German, or the Swiss form of it, from those inscriptions, as the author himself did. For their trouble they will be rewarded by quite unexpected glimpses into the souls and mindings of vanished generations of Alpine peasants in valleys well known and cherished by English travellers, and they will so better understand why the author and his helpers are anxious to preserve as many remnants of those bygone days as possible. Mr. Larden is quite right when he says that some of the verses he quotes 'represent to a greater or less extent the more serious side of the popular poetry of the time.' Others are suggestive in the way of archæology, trade, religion or

history, and in all of them the folklorist will find a rich harvest for his purposes. Before I end my review I may be allowed to write out from the preface the plan of the collection, so that the reader of this review may know what he will find in it.

In Part I., Nos. 1-107 include inscriptions from near Adelboden, Kandersteg, Gstaad and Binn, with a few odd ones from Grindelwald, Champéry, Graubünden, and the Riederalp, arranged chronologically. Then follow some from near Meiringen and Trubigen, and from the Diemtigthal, grouped under the heads of these respective districts. With the exception of the few from Binn, Champéry, Graubünden, and the Riederalp, all in Part I. are from Protestant districts, and all save I. 21 and 38 are external. In Part II., all are from Catholic districts, and most are internal inscriptions; they are arranged in groups under the heads of the respective districts where they were found. The author regrets that he did not follow this system from the beginning. It would indeed have allowed a better classification. As it was not possible, seeing the often very different characters of even two or more separate verses in one inscription, to construct a satisfactory table of contents or index, the author had to content himself, in the Appendix to both parts, with classifying the whole *corpus inscriptionum* under the following headings: Types of very common occurrence; deprecation of criticism; imminence of death, uncertainty of life; whence and whither; a blessed death, help in the hour of death; heaven; heaven and hell; future judgment; God or Christ the foundation or corner-stone; texts quoted or paraphrased; hymns quoted; miscellaneous references to God; miscellaneous references to Christ; miscellaneous religious inscriptions; references to particular events or facts; concerning young people; various moral precepts and reflections; miscellaneous items. In a separate chapter of the Introduction, the author deals with the sources of the verses. He makes it appear probable that only in a few cases have they been made for the occasion by the owners or their friends. Many were repeated over and over again in the same district and found to be known in Tirol and in the Quoiich district, as well as in the Bernese Oberland; finally there is reason to believe that travelling workers carried inscriptions with them.

All these things, as they are described in detail by Mr. Larden, are highly interesting, and some of them quite new even to Swiss scholars. So are also some technical hints the author gives about the working of the carvers, their methods of spelling, of preparing the beam for carving, &c. In fact his book contains valuable contributions not only to Swiss archæology and folklore, but also to the history of Swiss architecture. And the many excellent photographs add splendidly to the merits of this first monograph on Swiss House-inscriptions. We hope that Mr. Larden's book will have the effect on Swiss people, of stimulating their interest in a matter the literary part of which had seemed neglected by them only too long. And if English climbers who haunt the Alps are

eager, as Mr. Larden suggests to them, to pay a just debt 'to a country which has given them so much,' they can do no better or more profitable thing for both than to buy and study carefully a copy of our friend's and fellow-climber's book that is itself a homage to Switzerland.

I finish by quoting once more to the honour of Mr. Larden the words from an Inscription :

Gefällt es schon nicht Jedermann,
So hab' ich doch mein Best gethan !

And I lay stress on the word 'best.'

H. D.

Thirty Years in Kashmir. By Arthur Neve, F.R.C.S.E. With illustrations and a map. London: Edward Arnold. 1913. 12s. 6d. net.

In this work Dr. Arthur Neve gives us an account of all his mountaineering expeditions, journeys, and explorations in Kashmir during thirty years. Mountaineers will welcome it because no one is more competent to write about the great mountain ranges of Kashmir than Dr. Neve; others who are anxious to learn about one of the most fascinating and out-of-the-way parts of the British Empire, where 'three Empires meet,' will find plenty and to spare in this fascinating volume.

Dr. Neve and his brother, Dr. Ernest Neve, together have, since 1886, been in charge of the Medical Mission in Srinagar, where there is a most efficient hospital. It was during such time as could be spared for holidays that most of the journeys described in the book were undertaken. From Srinagar in the south to Hunza on the north, Leh in the east, and Nanga Parbat on the west, Dr. Neve has wandered amongst the great mountain ranges of the Himalaya and the Karakoram, climbing, exploring, and whenever possible giving medical aid to the natives in those out-of-the-way districts.

He has been in close contact with the most magnificent mountain country in the world, and has several times been to over 20,000 feet.

The first journey he describes is how he attempted to cross the Nushik pass to Hunza and reverse the expedition made by Colonel Bruce and Zurbriggen; it was, however, far too late in the year (September) and the crevasses on the north side of the pass were impossible. Next he crossed the Himalaya from Kashmir to Chilas on the Indus by the Barei pass, making the first recorded crossing of the pass by a European. He returned over the range by the Barbasar pass to Khagan.

His account of the Hunza campaign (1891), one of the most dramatic of the smaller Indian border wars (where three V.C.s were earned), is particularly interesting, for he not only has been over the whole of the ground, but no doubt got much of his information at first hand.

Next he gives a description of the two great peaks of Nun Kun

(23,447 ft.); they are situated in the Himalayan range east of Kashmir. These he revisited in 1910 and proved conclusively that the great W. glacier of the Nun Kun range flowed down to the Bhot Kol; this had been contradicted.

The most interesting exploration, however, was to the Nubra Valley in the Karakoram. In 1907 the Murgisthang glacier was visited, and in the following year, with Dr. Longstaff and Lieutenant A. M. Slingsby, he went to the Saltoro and the Bilaphond pass. It was after crossing this pass that they discovered the Siachen glacier, 'which is far the largest in Asia or elsewhere outside the Arctic regions.' They also discovered a whole range of high snow peaks unknown to the Indian Survey, the highest of which they named Teram Kangri (about 25,000 ft.). Besides all these accounts of expeditions to the mountains there is naturally much information about the country and the people.

Srinagar in the 'Eighties, The Medical Missions, The Conquest of Little Thibet or Ladak by the Dogras, &c., are some of the more interesting subjects he deals with. He also gives very interesting accounts of most of the important political events that have had to do with the borderland that lies N. of Kashmir, and that separates the Indian Empire from Chinese and Russian territories.

It is impossible, after thirty years' work amongst the people of the country, not to have amassed a unique amount of information, and Dr. Neve has made good use of his knowledge. He has produced an eminently readable book, and one which not only is of great interest at the present time, but one which later will always be of value as an honest and truthful account of the happenings in Kashmir during the last thirty years. The illustrations are very well chosen, and there is only one complaint to make—the map might have been better.

J. N. C.

La Dent du Midi, par R. de Breugel Douglas, with 16 illustrations and 2 watercolours. W. P. van Stockum et Fils. La Haye, 1913. (Price 10s.)

For those, like myself, to whom the environs of the Lake of Geneva are a second home, the splendid Dent du Midi has a peculiar fascination. I know of no mountain of its size which offers such striking effects.

The present elaborate work is obviously enough a labour of love. Twenty years ago Baron de Breugel Douglas was the most assiduous of the wooers of the great mountain, and may be said to have brought out the excellent Salvan guides, Pierre Délez and the late Emile Revaz. With them he made the first ascent of the St. Maurice face of the Cime de l'Est, a difficult and exposed rock climb, and with Délez alone the first passage of the Col de l'Est, involving some difficult ice work.

M. de Breugel has had the assistance in preparing his book of M. E. R. Blanchet, who, in company mostly of one of the Les Plans

guides, Veillon, has done many daring ascents in the vicinity. Between them they have produced a monograph so detailed and minute as hardly any other summit in the whole Alps can boast. The author takes each summit of the massif and has unearthed a mass of very interesting details as to the first ascents by the various routes. Thus we learn that the direct ascent of the Haute Cime from Champéry was first made in 1855 by a Scotchman, E. Bradshaw-Smith, with a Champéry guide, Rey, and the following year an enterprising solitary guideless climber, a certain McCulloch, repeats the ascent, although this route is even to-day seldom preferred to the easier, if longer, Pas d'Ance-Susanfe route.

When we come to the Dent Jaune the most interesting, for us, of the routes is that opened from the N. side by two honoured members of the A.C., the late Horace Walker and Mr. Charles Pilkington. The author's remark, 'Cette ascension, faite pendant l'orage, la neige et la grêle, doit être considérée comme un des assauts les plus formidables livrés à la Dent du Midi,—digne de membres du Club Alpin Anglais!' is of course not quite unwelcome to our ears.

No doubt, of all the summits, the Cime de l'Est, which dominates the Rhone Valley, is the most interesting to the mountaineer, and of this the author gives three very interesting sketches showing the routes followed on the several faces—and which certainly enlightened me, although I thought I knew the mountain and its history pretty well. The most interesting ascent of this summit is undoubtedly that made by M. de Breugel himself with my friend Délez right up the face that dominates St. Maurice, and which has, so far as I know, seldom been repeated.

The author then goes on to treat *seriatim* the Cols and the couloirs of the great Dents, and here again the most interesting is the famous Couloir de Chalin, some 500 metres high, leading to the Col de l'Est, and which was used in part by himself in his passage of that col.

M. de Breugel credits me with an ascent of the Matterhorn which properly belongs to Mr. J. T. Wills, and he also mentions an ascent in the day of all the summits of the Dents du Midi which Daniel Maquignaz, Délez and myself did one year. This is really not so very extraordinary when one is dead fit. We were out for a game that day and romped along, the great Daniel strolling after us anyhow, until when starting to descend the very much iced summit plaque of the Dent Jaune we found it extremely advisable to ask the great man 'si vous voulez bien passer le dernier,' which he did with a mastery and ease that were his very own.

The book is one that will not appeal in the slightest degree to the mere tourist, but it is a treasure-house of lore to the mountaineer whose interest in a mountain does not cease when he takes off his climbing boots. To the desperate cragsman the route-marked illustrations will be suggestive of many a fine climb.

The get-up of the book must have left the author a considerable

loser, but he has laid his offering at the feet of his divinity and I in particular am very grateful to him for recalling to me many a glorious and arduous day in winter, spring, and summer on the great rock wedge he loves so well.

J. P. FARRAR.

Die ersten fünfzig Jahre des Schweizer Alpenclub. Denkschrift verfasst von Dr. Heinrich Dübi. Bern, 1913. (Presented to members of the S.A.C.)

To commemorate their Jubilee the S.A.C. have issued a book of some 300 8vo. pages, giving in the greatest detail the history of the Club and all its sections—among which is mentioned the Association of British Members of the S.A.C. The Club may be justifiably proud of all it has done in the interests of mountaineering. It now owns 75 huts, with sleeping accommodation for over 2000 people.

Chapter I. gives a short résumé of what ascents had been made up to the founding of the S.A.C. in 1863, and very proper credit is given to the Meyer family for the valuable aid in mapping and opening up the mountain country, as well as for their energy in making several ascents very early in last century. Of course English names constantly crop up in these early days, and it is also amusing to read that when Herr Hirzel-Escher in 1822 reached the Monte Moro Pass from Macugnaga he was told by his guide that the great mountains before him were the 'Mistgabelhörner,' or Dungforkhorns! An interesting portrait is that of Dr. J. Coaz, who, born in 1822, made the first ascent of Piz Bernina nearly sixty-four years ago, and, still a hale and hearty veteran of over ninety, attended the S.A.C. Jubilee meeting last autumn. The remainder of the book is mainly taken up with very detailed accounts of the internal economy of the Club and its various sections, and of its general activities.

One is compelled to marvel at the prodigious industry of the editor, Dr. Dübi, in getting out this monumental production.

L'Opera del Club Alpino Italiano nel primo suo Cinquantennio, 1863-1913. With numerous illustrations, pp. 282. Turin. 1913.

This work, a memorial of the jubilee of the C.A.I., is presented to every member of that club, by the generosity of the Directing Council. It is worth possessing for the beauty of the photographs and prints alone. These illustrate every portion of the Italian slope of the Alps, and include some of Cav. Vittorio Sella's superb Himalayan views—all are deserving of the very highest praise. When we add that the text, besides its great intrinsic interest, is also of exceptional literary merit, we do not think that we are saying a word too much.

'Fifty years of Italian mountaineering' [G. Lampugnani,
VOL. XXVIII.—NO. CCIII

I

pp. 9-44], is perhaps the most interesting and charming chapter in the book. It contains an eloquent tribute to the names of those departed or still living members who have raised the C.A.I. to its present high level; the great Italian guides of the past, Carrel, Maquigauz, Castagneri, and Rey are also not forgotten, and there runs throughout the chapter a touching devotion and loyalty to the Royal House of Savoy. We note the usual more than kindly references to our own English-speaking members who have contributed in any way to the splendid work of the Italian Club.

Among other chapters of great value is one on the huts, paths, etc., constructed by the C.A.I. [A. Ferrari and F. Santi, pp. 45-75]. No one is more competent to discuss Club matters than Signor Walther Laeng, editor of the admirable *Rivista Mensile*, and he does so in three chapters, 'The Association of Alpine Students, etc.,' 'Mountaineering and Winter Sports,' pp. 159-173, and 'Scientific Research in Mountainous Regions,' pp. 205-248. This latter chapter is of surpassing interest, Signor Laeng even includes our own Lake hillocks among *Altre Regione Montuose*; as these said other mountainous regions include the Himalayas and Andes, we fully appreciate Signor Laeng's sense of the ludicrous.

We have specially noted these chapters, but every page of the work can be read with pleasure and profit. As a further example of the Italian Club's generosity, we may add that the registered postage of the reviewer's copy amounted to no less than 2 fcs. 50 cents.

We conclude by quoting from the President's introductory address: ' . . . *Vada a tutti coloro che nel pieno vigore della vita formano la numerosa falange che brillamente segue le orme dei primi nostri soci e mantiene alto il nome del Club Alpino Italiano.*'

The Alpine Club most heartily and sincerely endorses these words: long may the C.A.I. flourish!

E. L. S.

TWO GERMAN PICTURE-BOOKS.

1. *Hinauf*. By Theodore von Wundt. Demy 8vo. 192 pp. Stuttgart: W. Spemann.

At first sight, this book appears to be a motley series of pictures of every sort and kind that can be said to have any connection with mountains and mountaineering. Most of them are photographic reproductions: many are very beautiful; some are humorous; others have a topographical interest; while others again relate to the valley, or to peasant life.

Every page is illustrated, and beneath each picture is a quotation—almost invariably in verse. Some are from Schiller and Goethe; a few are translated from Byron, and many are verses from Volkslieder. To an English ear, however, a good many of the poets'

names are unfamiliar. Very occasionally we find a selection of prose, or a mountain proverb or pithy saying. The general impression the book gives is that we are dealing with an Alpine 'Kalendar.'

On looking more carefully, however, we find that the book is divided into sections under various headings, such as 'General Impressions,' 'Touring,' 'Mountaineering in general,' 'Ice-work,' 'Rockwork,' &c. There is a chapter, too, on 'Winter Sport,' and on 'Curiosities and Idiosyncrasies.' Closer study shows that neither illustrations nor text have been selected haphazard—that the latter has been chosen to illustrate the former, and that it is the text alone which gives the sequence of thought and plan.

The quotations are well chosen: the illustrations fit them aptly, and the two together are so arranged as to present a series of the various impressions and emotions which the tourist, the Alpine climber, or the student of human nature, may experience among the mountains and their inhabitants.

General von Wundt must have been at great pains in selecting, arranging, and harmonising his material. While those who cannot read German must lose the real meaning of the book—although they must derive enjoyment from the beautiful illustrations—those who know the language will appreciate his thought and industry, and will be well repaid.

2. *Der Alpinismus in Bildern.* By Alfred Steinitzer. 482 pp. 4to. Munich: R. Piper & Co. 1913. Price 20s.

This is a beautiful book of illustrations which every lover of mountaineering should possess. It is divided into twelve sections, each having an opening chapter giving the author's views on the particular subject treated. There are 680 illustrations and eight coloured plates, and for almost all the pictures we have nothing but unqualified praise. They are chosen from the point of view of the mountaineer rather than from that of the artist, the author's aim being to give either technically interesting, or topographically correct, illustrations. Some of the early plates are of special interest, and have never, probably, been reproduced before; and, so wide has been the field selected from, that the readers will be few indeed who can claim familiarity with more than half the total number. The collection must have cost endless time and trouble; and the preface, with its acknowledgment of permission to reproduce the pictures, makes one realise the wide research and careful industry that have been devoted to the work.

Though expressly limited, as the title shows, to mountaineering in art, Herr Steinitzer in the three pages of the Introduction (Section I) gives a very fair summary of the history of mountaineering in general. Some of his statements here, as elsewhere, are open to criticism, but as the volume is essentially a picture-book we need

not refer to various slight inaccuracies that occur in the text. The explanatory notes accompanying the plates are almost invariably excellent.

Section II, on 'Der Präalpinismus' (30 pp.), brings the reader up to the end of the eighteenth century. Though Hannibal is said to have climbed Etna to see the sunrise, the author considers Dante to have been the first true mountaineer, since he used to climb even in winter for the sake of the view. Leonardo da Vinci was far ahead of his contemporaries in appreciation of mountain scenery. A reproduction of one of his drawings of a storm in the Alps appears on p. 11. Before the end of the eighteenth century, no climber, as the author states, troubled to make accurate drawings, for the simple reason that nobody cared about the subject. Yet, the picture of the Géant and Jorasses (p. 31), drawn in 1781, leaves little to be desired.

Section III, on 'Classical Mountaineering,' forms the kernel of the book and occupies 200 pages. It begins with de Saussure's ascent of Mont Blanc in 1787, which is regarded by the author as the beginning of true mountaineering, and ends with the conquest of the Brouillard and Furggen ridges in 1911, and the last great problems of the Western Alps.

The early pages of this section contain specimens of Bourrit's work, the first of the long list of mountaineers who have also been artists. There are good examples from the Mont Blanc monographs; and, in addition to illustrations—some historically interesting, and some grotesque—we find a few remarkably accurate delineations, drawn in the first half of the nineteenth century, among which that of the Finsteraarhorn on p. 59, and that of the Charmoz on p. 67, may be specially mentioned. Later we come to pictures taken from 'Peaks, Passes and Glaciers,' Whympers's 'Scrambles,' Dent's 'Mountaineering,' and examples—to take well-known English names alone—from Coleman, Compton, Croft (misprinted 'Craft'), Gilbert, McCormick, Colin Philip, Tuckett, Elijah Walton, and Willink. In a book so well illustrated by representative drawings, and including photographic studies by Sella, Wundt, Abraham and others, it is curious that no example of Bonney's Dauphiné sketches should have been included, that the name of Loppé is nowhere to be found, and that the photographic work of Donkin and of Holmes should be quite ignored.

The 26 pages of Section IV are of 'Der moderne Alpinismus,' and the words are, for the most part, used in a highly technical sense, referring to rock-problems of exceptional difficulty, and to the exaggeration, actual or faked, of 'accidents' and thrilling moments. The popularisation of mountaineering, the portability of the modern camera and the inexpensive methods of reproduction now available, have led to an enormous increase in the pictorial representation of actual climbing, and this development has culminated in kinemato-

graph ascents of Mont Blanc, the Jungfrau, and the Matterhorn. Unfortunately the modern mania for excitement has led to much exaggeration and abuse, a condition which our author deplores as much as any of us. A picture of Herr Trier's on p. 242 is acknowledged by the artist himself not to be true mountaineering at all, but sheer love of adventure; and Herr Steinitzer considers such books as Nordhausen's an insult to the public, the illustrations being so obviously faked: two of these are given on p. 252. But the best of modern work is to be welcomed, and the section closes with a few beautiful examples of recent Alpine art.

Section V (58 pp.), on Extra-European Mountaineering, has some splendid Himalayan illustrations by Sella, Rickmers, and others, and pictures are given of the Andes, the Rockies and the Mt. Cook range. Mountaineering as a sport has only recently been introduced into Japan—the first of Asiatic countries to adopt it—but the beauty of mountain scenery has apparently always appealed to the Eastern mind. European illustrations of the seventeenth and eighteenth centuries are childish compared with some exquisite Chinese drawings of more than a thousand years ago, given on p. 262; and only da Vinci's sketches are in any way comparable to Japanese work of the fifteenth and sixteenth centuries (pp. 263, 264). Though conventional, like all Oriental painting, these Chinese and Japanese illustrations have the true mountain atmosphere.

There are short chapters on Skiing (16 pp.), Military Mountaineering (22 pp.) and Aviation (14 pp.) The pictures illustrating the chapter on 'Means of Communication and Aids to Climbing' (36 pp.) are very varied, and represent inns, huts, tents, roads, bridges, staircases, ladders, fixed ropes, pitons, sedan-chairs, diligences, railways, and funiculars.

In the last fifty pages of the book, Herr Steinitzer has collected caricatures, humorous sketches, posters, advertisements, Alpine Club menus, book-plates—all pictures in one way or another relating to mountains and mountaineering.

Among minor slips there is an obvious misprint on p. 36—'1904' for '1804'—and Mr. Carr's drawing of the Napes Needle on p. 186 should be, of course, in Cumberland—not Skye. But the illustrations with their accompanying notes have, on the whole, been arranged with great accuracy and judgment. Finally a word of special praise is due to the frontispiece by Bourrit, and the other coloured plates, which are extremely well reproduced. They include specimens of work by E. T. Compton and A. D. McCormick, and several distinguished German artists. Many references in the text to the British School of Mountaineering are flattering, and will gratify English readers, who will also appreciate—not less than their German-speaking friends—the carefully prepared index with which the volume closes.

C. W.

Führer durch die Mont Blanc Gruppe im Auftrage des Ö.A.C. Verfasst von Dr. Wilhelm Martin, Paul Reuschel, und Dr. Richard Weitzenböck (with 53 marked sketches of routes and a skeleton map). Vienna, 1913. Price 8s.

Twenty-two years ago M. Louis Kurz published his admirable 'Guide de la Chaîne du Mont Blanc,' subsequently translated in the Climbers' Guide series. Since that time the opening up of the group has progressed at a great rate, and consequently the want of a new edition * had long been severely felt. It is notorious, however, that the publication of such a book usually means a loss to the author, and it is hence readily to be understood that frequent new editions are out of the question. The gap has now been filled by the publication, under the auspices of the Austrian Alpine Club, of a most workmanlike guide in German. Some indication of the very thorough exploration of the group which has taken place in the interval is given by the fact that the Kurz guide published in 1892 contains less than 250 route descriptions, whereas the new Austrian guide contains nearly 800.

The actual authors of the Guide are the well-known mountaineers Dr. W. Martin (Berlin), Dr. Richard Weitzenböck (Graz), and Herr P. Reuschel (Hamburg), and one or more of them have spent a considerable time in the Group in carrying out many expeditions as well as verifying other descriptions.

The book is of very handy size (pages 6½" × 4"), is printed on thin but scarcely tough enough paper, and forms a convenient and very light pocket volume of about 250 pages. All the routes described are numbered consecutively, an admirable arrangement for facilitating reference.

A small supplementary volume contains the references to published accounts of the expeditions (71 pages). These might very well have been placed at the head of each route, and as weight is of course of great importance the book could have been made to divide into sections like Bädcker.

One very important feature in the book is a series of black-and-white sketches on which the routes are marked and numbered to correspond with the text.

For my own part I rarely trouble to read closely the detailed and often none too clear route descriptions contained in these guides for climbers; in fact I would go so far as to express the opinion that elaboration of description does certainly not tend to forward the education of the rising mountaineer. But I am always quite ready to look at a marked sketch or photograph, so as to get an idea of the general direction. One is then forced to draw on one's own powers to work out the details on the spot, and this plan is infinitely more instructive than turning to a detailed description at the

* A new edition in French is promised for the season of 1914.

least provocation. Descriptions are moreover notoriously often very puzzling when one is traversing the reverse way of the book.

I am bound to say that many of the sketches in the present volume might be very much clearer, *e.g.* the sketch of the E. face of Mont Blanc, p. 168, and others. I confess, however, in looking rather carefully through them, that some have quite sufficed to give me a pretty accurate insight into the line of ascent of more than one peak still on my agenda, and which I had hitherto been too idle to read up. Still the Club Führer of the S.A.C. and the clear sketches which accompany many of the papers of Dr. Guido Mayer have accustomed us to rather more finished work—and this will, I understand, be attended to in the next edition. The ideal sketch would of course be a reproduction of a photograph, and it seems to me that such a feature would be willingly paid for. Evidently great trouble has been taken by the authors in elucidating the route descriptions, but they allude very feelingly to the unfortunate want of clearness of many of the published descriptions of expeditions in the group, and they will certainly not be offended by the intimation of any errors.

The book includes all the new expeditions made in 1912. The wet summer of 1913 was barren save for the expeditions recorded in the November 1913 and February 1914 ALPINE JOURNALS. So far as I have examined the text, the descriptions are concise and clear. The Capucin (3831 m.), on the S.E. arête of the Mont Blanc du Tacul, still, I believe, unascended, is not separately indicated although casually mentioned on page 78. But the book is generally extremely complete, mentioning even many quite unimportant variations. The two volumes are enclosed in a rather superfluous case, and accompanying them is a skeleton route map on tracing paper for placing over the Imfeld-Barbey map.

The O.A.C. is most heartily to be congratulated on its public spirit in bringing out this very useful book, but still more on the possession of sons willing and competent to undertake the very arduous labour.

J. P. FARRAR.

Les Alpes de Savoie, Guide pour l'Alpiniste. Par Emile Gaillard. Librairie C. Faure, 5 Place de la Barre, Macon.

Vol. I. *Massifs entre l'Arc et l'Isère.* 7 fr. 50 (published in 1912).

Vol. II. *La Frontière Franco-Italienne entre la Seigne et le Thabor.* 8 fr. (to be published very shortly).

Vol. III. *Massifs entre la Savoie et le Dauphiné.* 4 fr. (to be published in 1915).

The second volume of this very useful guide-book is now announced covering the Tarentaise, a district not already annexed by a Climbers' Guide, and to which the best guide-book at the present time is Dr. Coolidge's incomparable edition of 'Ball's Western Alps,' which, however, does not, of course, profess to be a Climbers' Guide, although during a month's visit to the country between the

Mont Cenis and the Col de Bonhomme I carried nothing else, and found it ample. M. Gaillard is an officer in the French Génie. His first volume is well got up in a handy size ($4\frac{1}{2} \times 7$) and contains fourteen very useful skeleton maps to a uniform scale of 1 : 100,000.

The descriptions are very much after the well-known style of the Climbers' Guides, but the short 'Historique Sommaire' at the commencement does certainly not replace the very interesting historical notes which are one of the most valuable features of the Climbers' Guides.

The mountains in the country described are scarcely such as to need the marked outline sketches which always impress themselves on my mind much more permanently than any detailed description, and without which no modern Climbers' Guide can be considered complete.

J. P. F.

PROCEEDINGS OF THE ALPINE CLUB.

A GENERAL MEETING of the Club was held in the Hall, 23 Savile Row, London, W., on Tuesday evening, November 4, 1913, Sir Edward Davidson, *President*, in the chair.

The following candidates were balloted for and elected members of the Club—namely, Messrs. A. Barnes, I. de Bruÿn, E. C. Francis, Major P. B. Lindsell, and Lieut. R. D. Squires.

The PRESIDENT said : ' Gentlemen, although since we last met in June the Club has suffered some sad gaps in its ranks, I am glad to say that no serious accident has happened to any of our members in the Alps during the season just past. I much regret, however, to have to report the deaths of several members whose loss will, I know, be deeply felt by us all.

' First on the list comes Mr. F. F. Tuckett. He was in his eightieth year when he died, and was elected a member of our Club in 1859, two years after its foundation. He had long been one of the old guard, and had lived to become even a "vieux de la vieille." He was for some years perhaps the most active and ubiquitous of all the great climbers of his day, and combined, to a degree that has never been surpassed, skill, strength, and endurance as a mountaineer, with scientific knowledge, topographical aptitude and the true spirit of the investigator and explorer. He served on the Committee of the Club, and was Vice-President in 1866. On more than one occasion an offer of the Presidency was pressed upon him, but his invincible modesty, which was, otherwise, one of his greatest charms, unfortunately induced him to decline a position for which he was so eminently fitted, and which he would have greatly adorned.

' I will add no more to-night, as an admirable notice in the August

number of the *ALPINE JOURNAL*, written by one of his earliest mountaineering comrades and oldest Alpine friends, has anticipated more than adequately all that I could otherwise have said. At the same time I felt that the death of one whose membership conferred such honour on the Club could not be allowed to pass without some special tribute from this Chair.

'Then we have lost Sir Alfred East, whose death, following so soon upon that of our dear old friend Gabriel Loppé, makes a sad blank in the artistic circle of this Club. He was born in 1849, and was sixty-four years of age at the time of his death. He was elected a member of the Club in 1899, and the same year became an Associate of the Royal Academy. He served on our Committee not a very long time ago, and read an admirable paper on "Mountains from a Painter's Point of View" before the Club on May 7, 1907. He exercised a great influence over contemporary Art both in this country and abroad on the Continent, and was himself, in either medium, a landscape painter of great merit.

'He was elected to full Academic honours—with which alas! he did not live to be formally invested—only a very few days before his premature death.

'We have also lost one who of late has perhaps been better known to the members of the Club who regularly attend its meetings than either of the two gentlemen to whom I have previously alluded. I refer to Dr. Tempest Anderson. He was born in 1846, and was elected a member of the Club in 1893. He was a many-sided man of great attainments in his own profession, in which he ultimately specialised with peculiar success as an oculist.

'A scientific man of great distinction all round, he had made earthquakes, volcanic eruptions, and other seismic disturbances a special subject of study, and he was one of the greatest authorities on these matters, in the investigation of which he visited all parts of the world. It was on his return from one of these voyages that he unfortunately died of enteric fever contracted at an age when, as I have understood, one is generally supposed to have attained immunity from this scourge. He was a most skilful and artistic photographer, as we who have seen his pictures on these walls well know.

'He was a regular attendant at our meetings and a frequent contributor to our discussions, and his conversational gifts and personal charm will be long remembered amongst us.

'He held a high place in the affection of his fellow members, and his death leaves a deep void in our ranks.

'Sir Reginald Cust, one of the most venerable of our members, has also passed away. He was elected in 1884, when he was in his fifty-sixth year, and, of course, at that age, he could hardly be expected to accomplish any remarkable climbing feats, but he always took a keen interest in the exploits of his younger fellow members, and his genial and kindly disposition made him a general favourite.

'With a reference to Mr. Wm. Maude, I am glad to say that the list is closed. He had been a member of the Club for twenty years, and I remember meeting him more than once in the Zermatt district long ago, but he had not been climbing much of late. I am sure we have all heard of his death with deep regret.'

Mr. W. N. Ling then read a paper on 'Some New Climbs in the Caucasus,' which was illustrated by lantern slides.

The PRESIDENT said : 'We are fortunate in having with us to-night several of our best-known Caucasian explorers. It is some years since any fresh explorations have been made in the Caucasus by British parties : indeed until Messrs. Raeburn and Ling broke the spell this summer it was more than ten years since any members of this Club had visited the district. Should, however, some Alpine "Truthful James" be moved to inquire "and is the Caucasian played out?" I venture to reply "No." Mr. Woolley is here, and I am sure we shall all be pleased to hear any remarks he may like to offer on the subject.'

Mr. HERMANN WOOLLEY said : 'A Paper on the Central Caucasus, after so long an interval, is a pleasant reminder of the brave days of old. I have listened to Mr. Ling's address with the greatest interest and am glad to be able to congratulate him and his companions most heartily on the success of their first expedition to this attractive country.'

'I have had only one clear view of Chanchakhi from the south, and that was twenty-four years ago when with the search party of 1889, and I have ever since regarded it as one of the prizes of the Caucasus. Everyone who sees it from the south must be struck by its noble appearance. It towers above the western slopes of the Mamison pass very much as the Matterhorn towers above the head of the Vispthal, and one reason why it has not been attempted before may be that for many years it was supposed to have been climbed by M. de Déchy, in 1884. There are one or two good photographs of the peak from the south in the first volume of M. de Déchy's book on the Caucasus.'

'It is not surprising that Chanchakhi proved to be a difficult climb ; it looks exceedingly difficult and as both it and Nuamquam were attacked from the south the difficulty would in each case be increased by the hard ice-slopes encountered. I do not remember ever to have had any severe step-cutting when attacking a Caucasian snow peak from the north, but the mere recollection of some of the southern ice-slopes almost makes one's ribs ache.'

'It is rather surprising that so long an interval as ten years has elapsed since the last British party visited the Central Caucasus, because I may safely say that the finest climbing I have ever enjoyed and the most splendid scenery I have ever seen have been in that magnificent mountain range. Now that Messrs. Ling and Raeburn and their companions have led the way, perhaps a new period of activity may set in.'

Mr. L. W. ROLLESTON said : ' I wish to congratulate Mr. Raeburn and Mr. Ling on the results of their expedition. It is ten years since Longstaff and I were in the Caucasus, and of the new ascents made by Mr. Ling's party I remember only Nuamquam. We failed to find a way up this mountain, and I think the ascent we have heard of to-night must have been an extremely difficult one.

' I envy Mr. Ling his visit to the Caucasus. It is perhaps the most beautiful mountain land in the world, and, with Mr. Woolley, I wonder that more of our members do not go there.'

Dr. T. G. LONGSTAFF said : ' The experience of Mr. Ling's party was very similar to our own ; that is in the value of the information received from Mr. Woolley. The most surprising thing about this expedition is the enormous amount of country covered. I believe it is a country that is becoming more popular than ever among the members of the foreign Alpine Clubs, but for about five years after we had been there it was deemed unsafe to climb in this district. I don't know if this was due to Rolleston's behaviour, or mine. I certainly think it is a most magnificent country and I do not know whether you could get finer climbing even in the Himalayas ; and it is certainly a happy hunting-ground for the mountaineer who is anxious for new peaks. We only had a month out there and I never had such a month's climbing and do not suppose I shall ever have such a month again. I think that the Central Caucasus both north and south give about as fine climbing as is to be found anywhere, and for anyone with even five weeks' holiday it is worth their while to go out there and have two weeks' climbing.

' I congratulate the reader of the Paper and his companions on getting through all that country and doing such very fine climbs as well. Nuamquam must have been a tough job.'

Mr. W. G. JOHNS said : ' Mr. Ling has covered the ground so well that I am afraid I can add nothing of interest to the Paper he has read. I was only away from London for six weeks, but that gave me a full month in the Caucasus and the long train journey is well worth making if one can get four clear weeks out there. I consider myself very fortunate in having been associated with two such excellent mountaineers and companions.'

The PRESIDENT said : ' I am very glad on behalf of the Club to welcome Mr. J. R. Young here to-night, and I am sure we all desire most heartily to congratulate him on the very beautiful photographs which he has obtained and has been good enough to place at our disposal this evening.'

Mr. G. A. SOLLY said : ' I join in congratulating Mr. Ling and it is a great satisfaction to the Members of the Scottish Mountaineering Club, and, I think, a cause for some justifiable pride that an expedition organised by some of its most prominent members has been so successful. A great deal depended upon the weather, which has often been so bad in the Caucasus, and probably no expedition except that of Mr. Rolleston and Dr. Longstaff has

been so fortunate in this respect. Mr. Ling spoke of having had only two really wet days. My recollection is that in 1893 and 1894 we had only about two wholly fine days. It would be interesting if a table were prepared from the accounts of the various expeditions since 1868, showing the character of the weather each year.

'Referring to the picture of Moratvi the hunter, he is the same man that was with me on the ascent of Machkin in 1894, and he had also been with the late Herr Merzbacher a few years earlier still. Mr. Ling mentioned that he had seen "tur" * near the Gulba pass. I saw a bear near that pass but have only seen "tur" on the south side of the Ingur.'

The PRESIDENT said: 'The moment has now come for me to fulfil what is always a very pleasant duty, and that is to move a most hearty vote of thanks to Mr. Ling for the admirable Paper which he has read to us and to which we have all listened with the greatest interest. It seems to be generally agreed that the weather in the Caucasus is extremely bad as a rule, but I gather from Mr. Ling, though at first it sounds rather paradoxical, that Ushba, the great mountain of the Caucasus from the climbing point of view, is best avoided after a spell of continuous fine weather, which turns snow slopes into ice and sets the stones in motion. In the circumstances it cannot be doubted that the party exercised a discretion which was the better part of valour, in recoiling before the impossible. However, as the old saw hath it, "he who fights and runs away will live to fight another day" and we all hope that the unsuccessful attempt on Ushba on this their first expedition to the Caucasus will be turned into a success on their second visit—for from something I heard earlier in the evening I gather that a second expedition to the Caucasus is contemplated—and I am confident that it is the wish of every man in this room that it will be left to them to make, at no distant date, the first English guideless ascent of Ushba.

'I move a most hearty vote of thanks to Mr. Ling, and I am sure that you will all carry it by acclamation.'

Mr. W. N. LING in replying said: 'I can only thank you very much for the kind way you have received my Paper, and I should very much like to express my gratitude to Mr. Woolley, Mr. Raeburn, Mr. Young and Dr. Ronchetti for the help they have afforded me. I hope that the result of our expedition may induce other Members to visit the district.'

THE ANNUAL GENERAL MEETING of the Club was held in the Hall, 23 Savile Row, W., on Monday, December 15, 1913, at 8.30 P.M., Sir Edward Davidson, *President*, in the Chair.

The following candidates were balloted for and elected members of the Club—namely, Mr. William Scarth Dixon, and Mr. Philips Christiaan Visser.

* *Capra Caucasica.*

The PRESIDENT, in accordance with the provisions of Rule 29, declared the following gentlemen to be duly elected for 1914 :—

As President : The Hon. Mr. Justice Pickford in place of Sir Edward Davidson, K.C.M.G., C.B., K.C., whose term of office expires.

As Vice-Presidents : Mr. E. A. Broome and Mr. George H. Morse.

As Honorary Secretary : Mr. C. H. R. Wollaston.

As Members of Committee : The Rev. G. Broke, Mr. C. Cannan, Mr. W. N. Ling, Capt. E. L. Strutt, Mr. R. W. Lloyd, Dr. O. K. Williamson, and Mr. C. F. Meade, Mr. G. E. Gask, and Mr. J. E. C. Eaton in the places of Mr. H. C. Bowen, Mr. W. A. Brigg, and Dr. H. D. Waugh, whose terms of office expire.

Mr. H. G. Willink proposed, and Mr. Hermann Woolley seconded the proposition, that Messrs. Richard L. Harrison and E. B. Harris be elected Auditors, to audit the Club accounts for the current year. This proposal was carried unanimously.

In declaring the election of the Hon. Mr. Justice Pickford as President of the Club for the coming year, the President said : ‘I must congratulate the Club most heartily on the admirable choice which has been made.’

The Hon. MR. JUSTICE PICKFORD said : ‘Mr. President, I hope I may be allowed to say a few words to express my thanks to the Club for electing me their President. They will be few because I have found in the course of a not very short life that it is not a very difficult matter to talk when I do not care anything about the subject on which I am talking, but that it is a much more difficult task to me when I really want to express what I feel. I can assure you that I feel greatly the honour that you have done me in electing me your President. I feel it is a great honour and a great pleasure, and I also feel that it is a great responsibility. When I look back on the Presidents of this Club I find we have had men distinguished not only in mountaineering, but distinguished in other spheres of life, and I know it will be difficult to follow them, but I can only say that I shall do the best I can. I feel that there are other members of this Club who would be for many reasons more fitted to fill the Presidential Chair, as I did not begin to climb until rather late in life—in fact, about the age when many persons are thinking of giving it up.

‘I have not, and cannot have, what you, Sir, and your immediate predecessors and many others have had—the qualification of a long and distinguished career of mountaineering. Still less can I venture to claim the eloquence and knowledge of other past Presidents. But I do lay claim to this, that neither you, Sir, nor any of your predecessors could more earnestly wish to serve the best interests and support the position and dignity of the Club.

‘In my new position I know that I shall have the valuable help of your advice and experience, and that of the Vice-Presidents, and I rely very much indeed upon the help I shall get from the Honorary Secretary, who, in addition to being, as the Club knows,

a most efficient Secretary, is, I am glad to say, like yourself, a very old personal friend of my own.

‘But, Sir, there is one thing upon which I rely even more, and that is the good-will of the members of the Club. It has never failed and I am quite sure it never will fail anybody who honestly does his best, even if the results be not all that the members might wish, and having this help I accept with gratitude the honour to which you have elected me.’

The PRESIDENT (Sir Edward Davidson) then delivered an address.

Mr. E. A. BROOME said: ‘It is my duty, Gentlemen, to-night—and a more pleasant duty one could not possibly have—to voice in your names a most hearty vote of thanks to our distinguished and, alas! retiring President. I think, too, you will wish me to thank him not only for his “Gracious speech from the Throne” to-night, but also for all he has done for our Club while ruling so ably and so tactfully over us during the last three years. He has summed up to-night all that has happened during that time: much that has been pleasant, much that has been sad, but every word most interesting, and I would not attempt to supplement or criticise anything he has said, even if I could.’

‘As regards the climbing portion of his address—and, after all, climbing should come first—we have heard of some remarkable feats by the members of the Club, and when it comes to a knowledge of the Alps, no one is more qualified to speak than our President: indeed, I should say that what he does not know is not worth knowing. He has been a most catholic and comprehensive climber himself; he has climbed all the chief peaks by all their best routes, and he knows what everyone else has done. Indeed the only mountain there are some doubts of his having achieved is the Riffelhorn.

‘As our presiding genius here our heartiest thanks are due to him. He found the Club working harmoniously, he has left it still more so, and this is a feather in his cap; we are, perhaps, occasionally a little argumentative among ourselves; but with our President and Honorary Secretary both ready, if necessary, to throw oil on troubled waters, our sea has been smooth. To vary the metaphor, the wolves and the lambs have lain down together and a little child has led them.

‘During his term of office our President has cemented many old friendships, contracted many new ones, and on the Committee it has always been a pleasure to work with him.

‘As our servant he has served us faithfully and well, and worked for us at home and abroad with zeal and discretion.

‘As our head he has been a marvel and beaten all records for assiduity and attendance. It is a fact, Gentlemen, that since he was elected he has never missed presiding at a single one of our General Meetings, and I may also tell you that he has never missed taking the Chair at a Committee Meeting: that, I believe, is a record.

I also believe that he has attended all, or very nearly all, of the Informal Meetings and Dinners. The only personal grudge I have against him is that he has never given either of his unfortunate Vice-Presidents a "look in"; but they don't bear malice, and knew when they were well off.

'I have much pleasure in proposing in your name a most hearty vote of thanks to our President for his delightful address to-night, and for all that he has done for us during the whole term of his office.'

MR. CHARLES PILKINGTON said: 'It gives me very great pleasure to second the proposition put by Mr. Broome, and I entirely agree with what he has said.

'As one who has passed through the mill himself, I ought to know how to appreciate the thanks that are given to retiring Presidents. I remember once thinking that the thanks ought to be the other way, for in asking a man to be President of the Alpine Club you confer on him a very great honour—in fact, you give him the greatest honour which it is in your power to bestow.

'In the present case, however, I think a specially hearty vote of thanks is due to our President, because he has given a very great amount of valuable time in carrying out faithfully the duties he has undertaken, and as it has been revealed to him by past experience all that there is to know about the history and work of the Club, and as he is an accomplished mountaineer, knowing the Alps from end to end, that time has been very valuably spent for us. Of course, you who live in London know more about these things than some who come from the more distant parts of the Kingdom, but I assure you that Sir Edward Davidson's services are most fully recognised in the North, and I feel sure that all parts of the United Kingdom will join in voicing a most hearty vote of thanks to him for the three years' service that he has so loyally and freely given to this Club. I have much pleasure in seconding the proposition.'

MR. HERMANN WOOLLEY said: 'We are all very much indebted to Sir Edward Davidson, not only for his unsparing self-devotion to the interests of the Club over which he has presided, but also for the pleasant tone he has given to the meetings, and the unflinching courtesy, consideration and kindness he has always shown to his fellow members.

'I have always felt, and I am sure we have all felt, that one of the great attractions of our meetings has been the spirit of good feeling and fellowship that has always existed, and I may safely say that this traditional characteristic of the Club has been maintained and fostered by Sir Edward Davidson, not only at the evening Meetings, but also at the Committee Meetings.

'I have very great pleasure in supporting the vote of thanks.'

MR. NEVILLE S. DONE said: 'Mr. President and Gentlemen, it has been suggested to me in this quarter that perhaps the older and

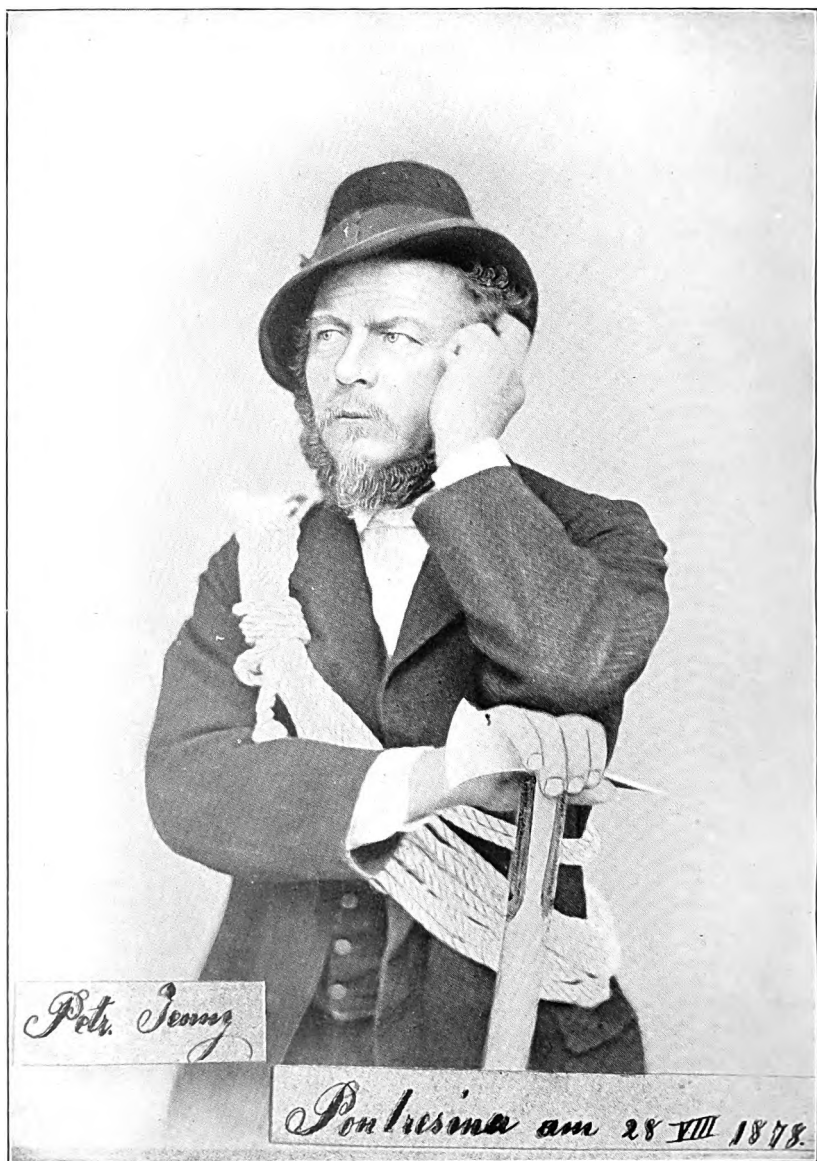
more distinguished members of the Club would not think it unfitting that independent expression should be given to the thanks of the younger members to the President. I will not add to what has already been said, but will rather appropriate and adopt it on behalf of the younger members. Although you, Sir, hold so exalted a position, we have always felt that we were assured, no less than others, of a share in your interest. We have appreciated your kindly consideration and your genial humour, and we heartily concur in the thanks of the Club to you for your great services to it as President.

The vote of thanks was carried with enthusiasm.

The PRESIDENT said : 'Mr. Broome, Mr. Pilkington, Mr. Woolley, and Mr. Done, I thank you from the bottom of my heart for the very kind and touching things that you have said in reference to me, and I am deeply grateful to all my brother members of the Club who are present here to-night for the very generous way in which they have received the observations which you have been good enough to make. It is said that "Out of the abundance of the heart the mouth speaketh"; I feel just at the moment that this saying would perhaps be more aptly rendered "When the heart is full the tongue refuses its office." I am indeed most grateful to you all, for the vote of thanks you have so heartily accorded to me and for the truly brotherly spirit in which you have on all occasions overlooked the many omissions and errors of which I am only too well aware that I must from time to time have been guilty. I can only say that they have been sins of omission rather than commission, and were not wilful on my part. I was particularly glad to hear one of my younger brethren say that the junior members of the Club, were, on the whole, not dissatisfied with me. When one gets on in years it is one of the greatest pleasures, if not the greatest pleasure, to see the feats that one may perhaps have been able, or which, at any rate, one thinks one might have been able, to accomplish in one's own more vigorous days, accomplished by younger men, at a time when one can no longer accomplish them oneself. The next greatest pleasure to working out a new route or ascent in the Alps is to suggest a new route and watch a younger man, in whom one is interested, make it.

'I am very glad that our senior Vice-President, on the last occasion of my occupying this chair as your President, has not failed to produce his usual scriptural quotation, although it took him rather a long time to bring it out, and he has called me something that I have never been called for more than fifty years, perhaps not for fifty-five years, "a little child." Whether the quotation was apt or not I leave it to you to decide. I hope, at any rate, that he did not mean that my "second childhood" was at hand.

'Brother members of the Alpine Club, I am deeply grateful to you for all that you have done for me during these three most happy years. I accepted this office with the greatest possible diffidence,



Petr. Jeany

Pontrésina am 28 VIII 1878.

but owing to the constant kindness and unvarying support which you have given me I lay it down with the greatest possible regret.

‘Owing to the fact that I hold a post in the public service, the duties of which are always responsible and frequently very onerous, I have not been able to devote as much time as I should have liked to the affairs of the Club, but this I will say, with confidence that it is true, that on every moment that could be properly spared from my official duties, the service of the Alpine Club has had the first claim.

‘I thank you all most heartily once more, and wish you all every success and happiness in the future both in the Alps and elsewhere.’

WINTER DINNER.—The Winter Dinner was held in the New Banqueting Hall at the Savoy Hotel on Tuesday, December 16, at 7 p.m., Sir Edward Davidson, President, in the Chair. There were present 351 Members and their guests, among the latter being The Right Hon. Lord Glenconner, The Right Hon. Lord Moulton, F.R.S., The Lord Robert Cecil, K.C., M.P., Sir John Wolfe Wolfe-Barry, K.C.B., LL.D., F.R.S., Sir Squire Bancroft, and Mr. John L. Griffiths (American Consul-General).

THE ENGADINE GUIDES.

PETER JENNY AND HANS GRASS.

THE portraits of Peter Jenny and Hans Grass, well-known Pontresina guides, here reproduced, as well as one of Christian Grass, have been kindly presented to the Alpine Club by Sir Squire Bancroft.

Peter Jenny's name occurs in many of the early Engadine ascents. He made in 1858, with Herr Saratz, the first ascent of the Bernina by the Loch, and in 1861, with the Rev. J. F. Hardy and Mr. E. S. Kennedy, the first ascent by the Festung. He also accompanied Tyndall, as narrated in a well-known article, and he was one of Dr. Güssfeldt's guides on the famous first crossing of the Güssfeldtsattel (1872). He is described as a man of considerable tenacity of character. He died in 1891, aged about seventy.

Hans Grass was by far the most famous Engadine guide

of his day. He counted among his employers Emil Burckhardt, D. Marinelli, B. Minnigerode, besides men whose memories are still green with us, such as E. S. Kennedy, J. F. Hardy, E. N. Buxton, W. E. Hall, and others.

Among his first ascents were the N.E. face of the Bernina (1879) and the W. face of the Bernina (1880); but it was when he became the leader of Dr. Paul Güssfeldt, one of the most daring and energetic mountaineers we have seen, that he made the great expeditions with which their joint names are indissolubly connected, viz. the famous Güssfeldtsattel (1872), the N. face of Monte di Scerscen (1877), and the famous Bernina Scharte route (1878). In 1879, with Dr. J. M. Ludwig, he made the first ascent of the dangerous N.E. face of the Bernina, and in 1880, with Mr. B. Wainewright, the first ascent of the very steep W. face of the same peak.

A short, thick-set man, of considerable force of character, he will be long remembered as an enterprising and capable mountaineer. He died on April 30, 1902, aged 74.

The particulars of the ascents are taken from Captain E. L. Strutt's 'The Alps of the Bernina,' Part II. (Climbers' Guides Series), 1910.



Hans Grass
Pontresina



Photo J. R. Young

ELBRUZ FROM THE DONGUSORUN POST, VALLEY OF BAKSAN.

THE ALPINE JOURNAL.

MAY 1914.

(No. 204.)

SOME NEW CLIMBS IN THE CAUCASUS.

By W. N. LING.

(Read before the Alpine Club, November 4, 1913.)

FOR ten years there is no mention in the JOURNAL of any of our members visiting the country of which the possibilities and charm were first brought to the notice of the mountaineering world by the enterprise and activity of Mr. Freshfield and his companions. The Himalaya, the Canadian Rockies, the Peninsula of Sinai, the mountains of Africa and of New Guinea, even of far-away Japan, bear witness that the enterprise and activity of our members are not exhausted, but the mountains of the Caucasus have meanwhile been left to our Continental brethren, and they have not been idle, as the records in the Austrian, Italian, and German-Austrian Journals show. True, the highest peaks have been climbed, but there is still an amplitude of not unworthy summits awaiting the foot of the conqueror. The Caucasus had always exercised a great fascination for me, and when, early in the year, I learnt that my friend and companion in many an Alpine ascent and adventure, Mr. Harold Raeburn, would have two months free this summer, it was quickly decided that an expedition should be organised. The length of time required prevented many from joining, and the party finally consisted of four :—Raeburn, our leader and organiser ; W. G. Johns, our fellow-member ; J. R. Young, of the Scottish Mountaineering Club, photographer to the expedition ; and myself; the unfortunate historian.

VOL. XXVIII.—NO. CCIV.

K

We were much indebted to Mr. Woolley for most valuable counsel and help with regard to equipment and topography, and our leader had assimilated all that had been written about the districts we proposed to visit. He went on three days in advance to make arrangements and to buy stores. We took with us from England tents, jams, and soups, in addition to our usual mountaineering outfit. The tents and jams caused some fluttering in the custom-house at the Russian frontier, but a cheerful ignorance of the language brought us through without any disbursement of roubles. We travelled by Flushing, Berlin, and Warsaw to Moscow, where we spent two days, then on to Vladikavkaz, our railhead, a thriving city of some 90,000 inhabitants, where it is possible to buy all the ordinary articles and stores required. The journey from London can be done in five days, which compares favourably with the time required to reach the Rockies.

Here we were fortunate in enlisting as a member of the expedition a young Russian gentleman, Mr. Rembert Martinson, eighteen years of age, and full of enthusiasm for the glaciers, some of which he had visited the previous year. He spoke French and German fluently, and some English, to which he added before the end of the expedition. He was able to make, with a Scottish intonation, the necessary remark when he barked his shins!

He proved an admirable companion and a capable climber, and his powers of endurance were remarkable for one of his years; he had no light task as interpreter and bargainer with the natives.

At Vladikavkaz, too, we secured a cook, Melitan by name, who spoke the dialects. His inability to cook was only equalled by his laziness in the many other jobs for which he was engaged to help us, and an unfortunate taste for vodka led once or twice to his fall, when he managed to escape our vigilance.

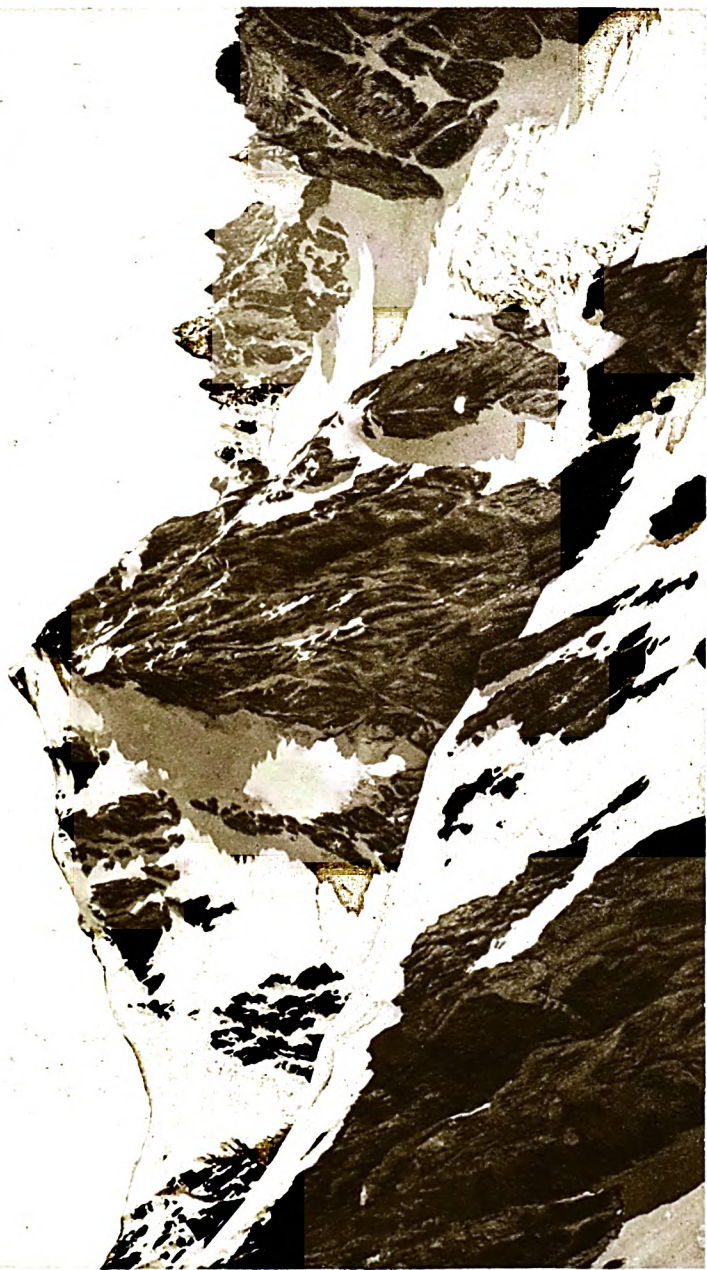
Our plan of campaign was to camp at the head of the Tsaya * glen and explore the Adai Khokh † group and attempt the many unclimbed peaks there for two or three weeks, and then to travel along the chain through Suanetia, over the Dongusorun Pass to Elbruz and so back to the line. As this was over three hundred miles and a good portion of it difficult travelling, in addition to the peaks we wished to assault, we had our work

* Tsaya = Mr. Freshfield's Zea.

† The word "Khokh" is pronounced "Choch" (strong guttural), which is the spelling used by the German authorities.

Longula Chook. ↓

Adai Chook. ↓



Swan Electric Engineering Co. Ltd.

Adai Chook and Longula Chook.
from S.E. ridge of Double Peak.

J. P. Young, photo.

cut out ; but, thanks to the admirable weather, we were able to carry everything through and reached London only one day later than we had intended ; but we had to work pretty hard for it. . We climbed seven peaks in all, five of them new. There was a sixth which we considered we were entitled to count, but our stern leader held that it was not a separate mountain. We were extremely fortunate with the weather, only two days being really bad. The natives said they had not had such a summer for seventy years.

We left Vladikavkaz on July 8 and drove to the small town Alagir on the Mamison Road, where we stayed the night. Starting early next morning we continued our journey along the Mamison Road—busy with traffic, especially with ore from the mines of Misur—to the Cossack post S. Nicolai. Here we had to leave our carriages, and after much bargaining secured six packhorses to convey our baggage up to our proposed camping site in the Tsaya glen, 2500 ft. above. We had a charming walk up azalea- and rose-covered slopes, past the ancient shrine of Rekom, where many heads of tur and deer had been laid from olden times,—and past the new Chalet inn to a pleasant glade by the glacier stream.

The shades of night were falling when we unloaded the baggage and paid off the horsemen, so we contented ourselves with the small tents for the night.

Next day, a lovely sunny day, we chose our site and put up our big tents, one for ourselves and the other for the cook and the baggage.

Wood and water were plentiful, and the views were superb, in front the wooded valley and behind us the glacier and the gleaming snows of Adai Khokh, the White Mountain.

We were able to buy eggs, chickens, and sheep from the natives in the neighbouring village, while milk and bread could be procured from the inn. Our camp was 6800 feet above sea-level.

We were eager to start work, and next morning left camp at five and walked through the woods and up the left moraine of the Tsaya glacier. We then turned up towards the Tsaya Aiguilles, and by scree, grass slopes, and a snow couloir gained a col on the ridge, where the aneroid gave 13,100 feet and the clock 2.30. The descent to the Karissart glacier appeared to be easy. We turned S.W. along the ridge, and by excellent snow and a rock ridge we gained the summit, 13,500 feet, for which we propose the name Tur Khokh, on account of the many traces of the *Capra Caucasica* we saw. The view

was superb, Kaltber and its chain, and the fine cirque at the head of the Tsaya glacier, the glittering snows of Adai Khokh and Songuta, but most of all were our eyes riveted on the towering form of Tschantschachi Khokh, a veritable Dent Blanche, and then and there we decided that an attack must be made on its virgin summit. Reluctantly we turned from this vision of splendour and returned to the col.

A glissade of 1300 feet down the couloir and easy snow helped to a quick return, and by seven we were back at our tents.

After supper, as we sat in the moonlight outside our tents, we descried three figures who proved to be Dr. Ronchetti, Herr Burdanski, and their guide, returning from a night out on the summit of Adai Khokh, where they had been overtaken by a snowstorm, with the unfortunate result that Dr. Ronchetti had got a foot frostbitten and had to return home the following day.

Our appetite was whetted, and next day we started out in the early afternoon with our two light tents, carried by our cook and a porter. We retraced our steps of the previous day, but followed the moraine higher before turning to the Aiguilles. Steep grass slopes took us up to 9800 feet, where we decided to camp. We sent back the porters. The only level spot we could find afforded space for one tent, so three members of the party had to emulate the conies and find shelter in holes in the rocks, but with sleeping-bags we were quite comfortable. I speak as one of the conies. The moon shone brightly when we rose at two, and was succeeded by a lovely dawn. Snow, moraine, then more snow took us up to a rock ridge where the aneroid gave 11,200 feet. Thence we traversed by slopes of scree and snow to a couloir which led to the main ridge, 12,000 feet. This was steep and gave us some good climbing, especially where gendarmes were to be surmounted or turned. The ridge was long, and finally the rocks merged into a steep ice-ridge which led us to the summit, 14,170 feet aneroid, at 3.20 p.m. We had again a splendid view, and made out Dych Tau and Koshtantau, and in the far distance a hazy outline which may have been Elbruz. We were again much impressed by Tschantschachi Khokh. On our ascent we saw many ptarmigan, and propose to call this peak (Ullar) Ullargh Khokh, the local name for the bird. We returned along the ridge and found a lucky escape down a couloir, descending in an hour and forty minutes what had taken us eleven hours to ascend. We had heavy loads from

Shachhorn Chock.



Swiss Electric Engineering Co. Ltd.

From the summit of Fur Chock, looking West.

J. R. Young, photo.

the bivouac, and reached our main camp at 9.15 P.M., seventeen hours from the start. A thunderstorm the following evening turned to steady rain, and extended the day of rest we had allotted to ourselves into two. It was still misty the morning after, but we set out with two porters and the light tents to camp as high as possible on the Tsaya glacier.

The following day, in fine weather, we went up the icefalls of the Tsaya glacier and climbed the ridge dividing the two branches of the glacier, to a height of 13,800 feet. The ridge was difficult and the rocks very loose, so we did not persevere to the summit, but returned to our bivouac and later descended to camp. When we arrived there at 9.30 we found an uproar. Our camp had been broken into the previous night, one of the tents cut, and a large basket containing precious jams and soups, an Eastern bag belonging to Johns, and several other articles, including the ground-sheet of our tent, had been stolen. The cook alleged that he had been driven off by four men armed with revolvers, but we never got the full story. Next morning the Starshina or Mayor of the village, with a retinue armed to the teeth, came and took the particulars of our loss and then started out to hunt the robbers, but from that day to this we have seen nothing of our belongings.

We went up to our bivouac again the next day, and spent the following one in exploration of the glacier.

On our return to camp we decided to move on to the Kalaki Kasarma, near the summit of the Mamison Pass, to try some of the peaks from there.

We bivouacked between the moraines of the Mamison and Western Saramag glaciers, and leaving at 3.30 A.M. we ascended the moraine to the foot of the first icefall, where we turned to our left and by a snowfield gained the ridge at a height of 12,000 feet. The ridge ran S. to a top which from the valley masks the higher peaks to the N., but we turned N. and followed an easy rock ridge to a great tower, which looked very imposing but was not difficult. The aneroid gave 13,300 feet, but as the ridge continued to rise after a dip we decided to follow it. The weather was misty and it was difficult to get our bearings. There was another gendarme, which we cut, then we came to a snow ridge which led us up to a sharp rock ridge whence the summit of the mountain W. of Freshfield's Pass, which we had seen and admired from the Southern Tsaya glacier a week before, was gained in a few minutes. The time was ten, and the height of this, the real Mamison Khokh, was 13,800 feet. We built a cairn and left

our cards, then went along the ridge to make sure there was no higher point.

We returned by the side ridge until we could take to the snow, which gave us an easy highway back to our bivouac at 1.30.

The following morning was misty, with heavy rain and thunder, so we delayed our start till 5.45, when the weather began to mend. We went up the moraine to the glacier, turned the icefall by the side, and gained the ridge by some loose rocks. The ridge was interesting and not particularly difficult; we reached a minor summit at 11, and the actual summit at 12. The aneroid gave 13,850 feet. We had expected to add another virgin peak to our bag, Saramag Tau, but to our disappointment there was a cairn already there, evidently the work of surveyors. It was cold and we could see very little, so we did not wait. We returned by the ridge till a convenient couloir gave access to the glacier. We skirted below the bergschrund back to the col and down to our camp. After a rest we packed up the tents and made our leisurely way back to the Kasarma, heavily loaded.

With some difficulty we secured an ox-cart the next day, to transport our *impedimenta* over the Mamison Pass to the Kasarma on the other side. The road near the summit was barely clear of snowdrifts. We had a splendid view of Tschantschachi Khokh, the next object of our desire, and from this side too it looked as impregnable to attack as it had done from the other side from which we had already seen it. We hoped to find a weak spot on the western face. There is a shelter at the summit of the pass, inhabited in the summer, and here we were able to buy a precious loaf of bread. We rather rashly left our ox-cart, in charge of the cook and the son of the Cossack, to follow while we took the straight descent to the Kasarma below. Hungrily we waited at the Kasarma till at last the equipage arrived. The cook had got some vodka at the pass, and had lost our bread. We loved him less than ever. Next day was wet and stormy and was spent in cooking, sleeping, and repairs. When it cleared later we saw the peaks white with new snow.

The day after was better, and we left the Kasarma at ten, crossed the ridge to the Twilisa glen and followed the moraine. Then up steep grass slopes and rocks to a point 10,500 feet up by the side of the glacier, where we decided to stop the night. We were a party of four, Young staying below to photograph. We had not brought the small tents, but had our sleeping-bags.



J. R. Young, photo.

Swan Electric Engraving Co. Ltd.

*Tschantschachi Khokh (L.) and The Curtain (R.)
from the Kazarma, Mamison Pass (L. side.) (July 1913.)*

We each chose a shelter, then Raeburn and I went up the glacier to reconnoitre the start for the morning. On our return we had a heavy shower of snow and rain, but it passed off and we had a comfortable enough night. We were up at two and away at four, wearing crampons, which proved to be a great help in the icefalls. They were complicated and required considerable care to negotiate. Above the second fall, at 11,900 feet, we halted for half an hour for second breakfast. After this we had some difficult work through the next icefall to the foot of the steep slope leading to the col on the ridge, which we had marked from the other side as a possible route, 13,050 feet. The weather, which had been fine early, with mist in the valleys, began to deteriorate; the mists followed us up, and it became much colder. We ascended the steep slope to the bergschrund, 13,500 feet, which we crossed with difficulty, and then had some very severe snow and ice work in endeavouring to force a route to the col. It was too icy, however, and after two and a half hours' work we turned to the rocks. There was a horrible couloir of ice and steep slabby rocks, which gave us very hard work, especially the leader, and provided one or two thrills. The first was when an axe came flying down the ice, fortunately within reach of cover-slip, who was able to field it, and the second when the youngest member of the party, who was coming last on the rope, announced that he was feeling unwell and might collapse. The strain of the angle and the cold from inadequate gloves were probably the cause, but heartened by encouraging words, backed by a sip from the flask and the promise of warm dry gloves as soon as we got to the easier ground above, he pulled himself together manfully and came on well. We took again to the slope and our leader had plenty of cutting. More than once we thought we were at the end of our tether, but our leader was indomitable, and by judicious traverses from steep rock ridges to strips of snow where foothold was obtainable we struggled ever upwards and finally came to a snow ridge which led us to the wished-for summit. The height was 14,500 feet and the time 8.45, twelve hours from our bivouac.

Of view there was none and it was very cold, but with the summit of Tschantschachi Khokh under our feet we cared for none of these things. The sun made an effort to break through the mist and light snow which was falling, but soon was lost. We built a cairn and hoisted a miniature Union Jack and a Scottish Lion, which our leader produced, and then

turned to the descent. This required the greatest care on account of the icy conditions, and our progress was slow. We were overtaken by darkness in the icy couloir, and after considerable manœuvring we were able to gain with difficulty a small rock platform at its side (10 p.m.), where we spent the night, at 13,700 feet. The wind had dropped and the snow ceased, but it was cold enough. We kept ourselves awake by singing choruses, and the night passed wonderfully quickly. We started again about five, descended a difficult chimney to the glacier, and regained our bivouac at 8.30. Here welcome food and an hour's rest put us in good trim for the walk back to the Kasarma. The crampons had proved invaluable, but were probably the cause of slight frostbite for two of the party.

To our great regret, Johns now had to return home and the party was reduced to four. We sent the baggage on to Gebi with the cook, while we descended to the small town Oni to replenish our stores. The trees were magnificent, and we had a fine view of Bubis. Next day we got our shopping done and reached Gebi after a six hours' drive. This was the last we saw of a driving road or a wheeled vehicle till we were well down the Baksan Valley, near Urusbieh. We were welcomed by the Starshina and housed in the school.

Our next objective was Ushkul, in the Ingur Valley, where we wished to attempt the ascent of the virgin Nuamquam in the Shkara group. A day was spent bargaining for horses to take the baggage, and it was only after two of the party had gone off to the neighbouring village of Schiora that the men of Gebi came to terms. The next morning, after much talking and delay, we got away and had a delightful walk up the Rion Valley. We were much impressed with the beauty of this valley and the side glens running into it. We pitched our tents near the junction of the streams, with a fine view of Edena Tau. Next day we crossed the Vaziszwari Pass, 9280 feet, and dropped down to the Skenis-skali, where we had a most adventurous time, crossing and recrossing the glacier stream and taking the horses over some very difficult ground. In many places there was one man at the head and one man at the tail. We hoped to have got over to the Zeskho Valley that day, but the going was too difficult, so we camped near a kosh below the pass crossed by Mr. Freshfield.

A heavy thunderstorm came on before we could get the tents pitched, and we and our baggage got wet, and when we had them pitched the fond attentions of the goats prevented much sleep.



J. B. Young, photo.

*Edena Tau, from Pion Valley.
(Aug. 1913)*

Swiss Electric Engraving Co., Ltd.

The following morning we crossed the pass with difficulty, the horses had to be unloaded, the baggage carried over by the men, and the horses roped down steep slopes and a gully. It took four hours to do the 600 feet over the pass and down to the easier ground on the other side. The valley of the Zeskho was very beautiful, and the vegetation sub-tropical. The track wound round the hillside, with many ravines which were difficult for the horses. At nightfall we reached the hamlet of Zena in a beautiful valley, and the following day crossed the Zagar Pass to Ushkul, getting a magnificent view of Mr. Woolley's peak Ailama. We had earned a day's rest after our exertions, and spent it basking in the sun and gazing at the splendid icefall of Shkara.

We set off with two porters next morning to bivouac for our attempt on Nuamquam. We walked up the valley of the Ingur on its right bank, and when the time came to cross one of our porters waded the stream, caught a horse, and took each of us in turn across behind him. The porters would not go further than the top of the moraine, so we had to carry everything ourselves from there up a gully and steep slopes to the edge of the glacier. We put up the two small tents. In the evening it was very wet, with a strong wind, but improved later.

We were up at one and away at three, roping and putting on our crampons at the bivouac. The glacier was fairly easy, with occasional trouble from seracs. At six we had a short halt for food on the rocks, with a fine view of sunrise on Shkara; half an hour took us above the icefall. Then steep slopes of snow lying on ice led us up to the bergschrund, 13,350 feet. The angle above this was steep—we measured 51° and 54°—and cutting was necessary. After this a rock-and-snow arête, steep, but not particularly difficult, brought us out on the main ridge at 9.45, the aneroid reading 13,980 feet, which was rather high.

A snow ridge, corniced in parts, was our path to the highest rock summit, 14,100 feet aneroid, where we had a short halt for food; then on to the highest point, which was a snow summit, 14,200 feet.

We had a magnificent view of the giants above the Dych-su glacier, Koshtantau, Dych Tau, Mishirgi Tau, and the graceful Ailama, while on the other side Shkara raised its stupendous crest. We went on to the third summit and started down the S. ridge, which consists of broken rocks and gendarmes. This was slow work, so we turned our attention to a couloir which

looked feasible. The snow was in treacherous condition and great care was necessary, the bottom bit being particularly difficult. We got on to the glacier at 7.30, and half an hour brought us back to our bivouac. Next morning we returned to Ushkul and arranged for horses to continue our journey to Betsho. We had the usual difficulty in getting away the day after. There was a fine row between the priest, who had procured horses for us, and the chief of the horsemen. It appeared that the priest was intending to pocket part of the price for himself, and after they had nearly come to blows the priest returned the money we had advanced to him, and left us to deal with the horsemen ourselves.

The track runs high above the mighty gorge of the Ingur, and after two hours' going, as we rounded a corner on the hillside, there burst upon our wondering gaze the tremendous twin-towered Ushba. Further on, Gestola and Tetnuld claimed our admiration. Young stopped to photograph while we, thinking he followed, went on, to Chalde in search of food. Unfortunately the track divides here, one going by the banks of the Ingur, while the other mounts high up past the village of Adish. We waited an hour and a half and then concluded that he would join the track farther on. By meadow and wood on the banks of the Ingur we went on to Bogresch, where the track turns up to the Ugur Pass over to the Mestia Valley.

We waited till nightfall, but there were no signs of the wanderer, so early next morning three of the party, mounted on the packhorses, rode up to Adish and there learnt that he had passed through the previous afternoon. Losing us and having no means of asking questions, the brilliant idea struck him of drawing four packhorses. The natives smiled and said 'Karacho' ('All right'), which he took to mean that we were ahead, whereas their approval was merely testimony to the excellence of his drawing. We finally overtook him at Betsho.

We put up at the resthouse the first night, then pitched our tents as a base for an attack on Ushba. The beautiful birches and other subjects attracted the photographer more than the mountain, so Raeburn, Martinson, and I, with Muratbi, the trusty porter of previous expeditions, took the Mummery tent up to the moraine of the Gul glacier. Our scheme was to cross the pass to the Western branch of the Chalaat glacier and to attack the Eastern face of the N. peak from the highest point we could reach on this glacier. We sent back the porter.



J. R. Young, photo.

Swan Electric Engraving Co. Ltd.

*The two snow tops of Nuamquam.
(Aug. 1913.)*

Next morning we crossed the ridge S. of Mr. Freshfield's Gulba, where we saw six tur, and descended 1200 feet to the glacier. The seracs gave us some trouble and the icefall was most complicated, but we worried through by the skilful work of our leader and gained the rocks. Above the fall, easy snow slopes took us up to the schrund and we got on to the Eastern face at a height of 11,100 feet at noon, and halted for our mid-day meal. The sun was hot and our loads were heavy,

*J. H. Young, Photo]*

MURATBI (PORTER) AND MELITAN (COOK), CAMP BETSHO

but the rocks, though steep, were sound and we made height rapidly. We got short stretches of snow, but for the most part were on rock. At 13,000 feet we found a suitable place for a gîte, an overhung shelf by the side of a couloir, where water was running. It was five o'clock and the sun was off the face, but while we prepared our meal an enormous avalanche roared down the couloir with a rushing wind which powdered us with snow. We had a fairly comfortable night in our eyrie, with brilliant moon and starlight. At 4.45 we were on the way again, crossed the couloir, and ascended by difficult rocks and

snow. A sensational crack brought us up to a vertical face of rock, which was quite impossible. Before us lay a couloir, which would have brought us to a ridge, very steep and icy, but perhaps possible, but down the couloir roared avalanche after avalanche and to persevere would have meant certain destruction. It was ten o'clock and the height 14,000 feet. It was a sore disappointment, but we had no choice. The descent was difficult, and we had to rush the couloir back to our gîte.

We followed closely our line of ascent and reached the upper glacier at 7.45.

The kindly moon helped us down the glacier, and we were lucky in finding a bridge over one huge crevasse; but the next one beat us, and we had to find a way down the rocks at the side. As we passed at a safe distance below some huge boulders on the glacier, there was a tremendous fall of rock, while vivid flashes and a pall of smoke floated over the glacier, temporarily obscuring the moonlight. The 1200 feet up to the col was a heavy grind, and it was 3 A.M. before we regained our tent. The faithful Muratbi was there, and when we had had some sleep we decided to send him down to Betsho for more provisions while we rested above, and then made an attack on the S. peak. Martinson, content with the attempt on the N. peak, went down with him. Raeburn and I had a restful but hungry day till Muratbi returned at six with ample supplies. The party, now reduced to two, started at five with heavy loads, and crossed the moraine to the glacier, where we put on our crampons to go up the big couloir; the top of it was steep and hard. Then some steep, loose rocks and a stiff chimney brought us to the foot of a narrow couloir, which ran steeply up to a small col. This was difficult, loose snow on ice and treacherous rocks at the side, while the top was overhanging. We gained the col, 12,820 feet, at 11.35. Here we got our first view of Elbruz, its mighty flanks almost primrose colour in the bright sunlight. From the col we went down to some very slabby rocks covered with scree. Beyond this there should have been a snowfield to take us up to the rocks where Mr. Rickmer's party spent the night, but after the fine weather this was bare ice, down which stones were falling constantly, so that route was barred. We tried a sensational ledge, which we hoped might lead above the ice, but this failed us.

We returned to the col, and Raeburn tried valiantly to get up the ridge, but the overhang was too great. Near the col we found a tin with Schulze's card and a note of his first ascent.



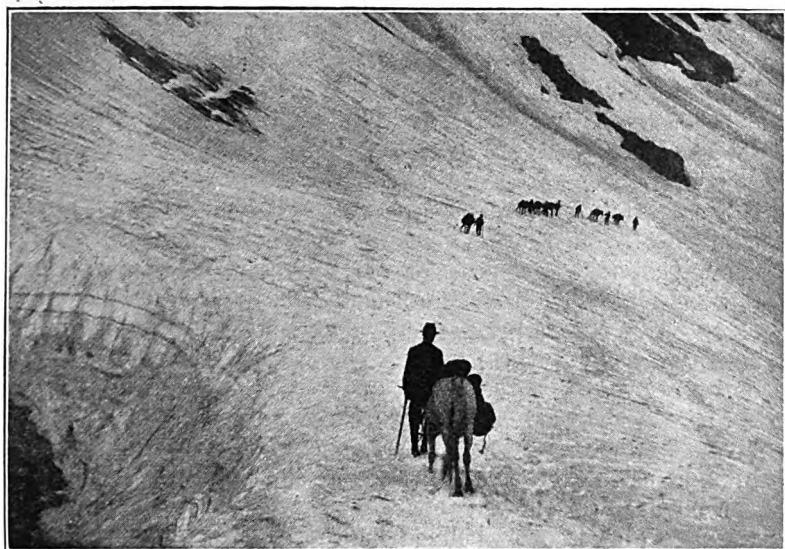
J. R. Young, photo.

Lynn Electric Engraving Co. Ltd.

*Abbots, J. W. Peak, (P.) and. Mageri-Taw (L.)
from above Bethesda. (Aug. 1913)*

The conditions were impossible and there was nothing for it but to retreat as philosophically as we could. We found a ledge near the col and had a fair night, though it could not be called warm. Sunset and the dawn on Elbruz were wonderful. A little over four hours, most of it spent in the icy couloir, took us back to our tent next morning, and later we descended to Betsho.

Time was flying and we had to push on to Elbruz, so after leaving our two big tents to the care of the Russian Resident



J. R. Young, Photo]

BAGGAGE TRAIN CROSSING THE DONGUSORUN PASS

for future travellers, we started next day for the Dongusorun Pass with four riding and three pack horses. After enjoying the kindly hospitality of Prince and Princess Dadesh Kilian at Ezeri, we reached the village of Lakuri after a heavy thunder-and-rain storm.

Next day we had some fine scenery, the great gorge of the Ingur and the Nakra Valley, where we nearly lost a horse in the glacier stream. We bivouacked high up in the glen, and next day, after some strenuous work, got the horses over the Dongusorun Pass and glacier and down to the Cossack post below Elbruz. Next morning Young went on to Urusbieh with

the horses and baggage, while Raeburn, Martinson, and I, with two porters, started for a bivouac on the Terskol ridge. We had not gone far before the porters, poor-spirited men, struck, and we had perforce to return to the post. We cut down the loads, and, carrying them ourselves, started again at 2.30 in the afternoon. It was a heavy grind up to the ridge, but after that the going was easy. We stopped at 7.30 for food, made a fire with wood which we had brought from the last trees, and rested till midnight. Starting again by bright moonlight, we scrambled up the broken lava and, at one, set foot on the vast snowfield, 12,000 feet. There was no inducement to stop, for the wind was cold, so we made good progress. We had a lovely dawn, and sheltered behind a rock to admire it and to have some food. Then a heavy grind up snow, which deteriorated as we mounted. The wind was very cold, and the sun was well up before its warmth was felt. Above 15,000 feet we found it very laborious, the rarity of the air, the condition of the snow, and the labour we had gone through all contributing, but we persevered and gained the summit of the Eastern peak at 12.25, 18,370 feet. We had a wonderful view from the Black Sea to Kasbek. It was cloudy over the Steppes and to the S., where we should have seen Ararat, but the peaks of the Central Caucasus stood out clearly.

The descent was easy, and three hours saw us back at our bivouac, where we had a meal, and then three hours more brought us to the Cossack post.

Next day we followed the Baksan river to Urusbieh, where we were almost overwhelmed by the generous hospitality of Prince Naurus. The fifty miles' ride and thirty miles' drive to the railway at Naltschik probably saved our lives after the gorgeous feast with which he started us on our way.

Thus ended the expedition of 1913, and the members of it will ever retain pleasant memories of many interesting experiences amongst the beautiful valleys and noble peaks of the Caucasus, and to our fellow-members, who wish for novelty and the joy of ascending unclimbed peaks, we can only say—Go and do likewise.

[The discussion on this paper is to be found on pages 122–124.]

CROSS-COUNTRY GLEANINGS IN 1913.

By J. H. CLAPHAM

(Read before the Alpine Club, April 7, 1914.)

I DO not know how it may be in other parties with an old-established nucleus, but in ours there is a time of pleasant uncertainty—in June or July—when interrogatory postcards go to and fro: postcards of this sort—‘? an approach from Glarus and a start over the Tödi.’ ‘? an approach through the limestone Alps of Savoy and an attack on the Col Dolent.’ ‘? get out of a Mont Cenis express at Modane and start north.’ There were private reasons in favour of Modane in 1913. To the weight of these was added that of a public reason—the horrible accounts of weather in the higher Alps which began to come through in July. For instance, in the *Morning Post* I fancy it was, an amiable person who thought that if you wanted quiet you should go to Zermatt had explained what July weather was like along the Central Pennines. Then, as I travelled from Cambridge to London on August 5, I met—and as it were wept with—a man returned from one of his very earliest seasons who had spent three desperate weeks in the company of Josef Knubel and in the clouds. When three of us reached Modane next evening we were met by a newly-joined member of the party, Muir, who had got wet to the skin that day on the lower slopes of the Aiguille de Polset. So, with a feeling that perhaps after all we were doing the wrong thing, we started up the high road about noon of the 7th.

The most important southern buttress of the main block of the Vanoise mountains stretches for miles, in an almost straight and a very even line from the summit of the Dent Parrachée to where it pens the Arc into a gorge on the S. side of its own valley. I imagine, judging by the forts along its lower crest, that this ridge is a considerable defensive position for the mouth of the tunnel. Above the forts there is, in August, a chequer-work of dusty fallow and red-gold patches of bearded wheat which toss in the airs that come up from the valley or down from the heights. Above the corn the village of Aussois in a cool meadow. Then a belt of pine-wood; then the upper meadows; then the unharvested alp, the stones, the ice, the crags, and the corniced snow-crest of the Parrachée. In these upper meadows, when the sun had

already gone down, we met men and women returning from work and asked our way to Fournache. Fournache proper, which lies in a high coombe on the E. of the ridge, we learnt was no longer used, but we were offered lodging in the highest summer homestead on the ridge itself. The people were very kind, the more so, I think, because one of us knew the prices of sheep and cattle in England, but the night was bitter cold.

Starting a little before 5 o'clock, we paid the penalty of the guideless in the matter of path-finding and the penalty of the season on a slope of small frozen scree, so did not strike the S.W. ridge of the Parrachée until 3.30. Our knowledge of Vanoise geography was inadequate and the maps are bad. I had a notion, based on memories of a walk though the district fourteen years earlier, that Vanoise glaciers had no more vice in them than the icing on cakes (this is true of some of them), and that we ought to climb the Parrachée and get over to Pralognan in the day. I dare say one could, but hardly on a first day or in 1913 weather. From the ridge this was pretty clear; for below us was a deep bay, the gathering-ground of the Glacier de la Dent Parrachée, in which clouds began to form early. To reach Pralognan we must either follow the ridge over several summits round the S. end of the bay, till it turned N.W. and then N., or we must drop and rise again over the main watershed where it runs N. and S.—its ice-cap, we now saw, was not entirely innocent—and find our way down the unknown W. side. We had not realised how completely the Parrachée is an outlier from the mass that culminates in the Dôme de Chasseforêt. So when our climb was done, a climb of which the main feature was some 60 yards of uncommonly narrow final snow-ridge, whose crest you kept sometimes under your armpit and sometimes between your legs, we cut and scrambled down into the bay and followed our peak's own glacier N.E.-ward downhill in the cloud. Our map said that there were chalets below on the Arpont Alp.

On the whole we were rather fortunate in hitting off a house which the maps called the Chalet du Mont but its owners Hell's Combe, some time late in the grey afternoon. On its roof is a stuffed suit of chalet clothes to keep eagles off the chickens—a thing which it fails to do—and its master is an old soldier of the Empire, who was through the war and the Commune and served under General Boulanger. So he says, and I believe him, though, as we found out later, his local nickname is Charles the Rotter, and his reputation that of

telling you 'one truth for every two hundred thousand lies.' His chalet we judged uninhabitable, but his stories kept us so long that it was dark, and misty into the bargain, before we were received into the more possible home of one of his neighbours.

They were having a wretched sunless time up at Arpont, and were full of complaint and bitterness. The morning came wet and sleety, so we left our hay late and started about 9, in broken mist, with the vague idea of working N.-ward under the glaciers, along the terraced alp above the gorge of the Leisse, towards the Col de la Vanoise at the N. end of the chain, and so perhaps to Pralognan. Towards noon we struck the E.-flowing stream of the long Pelvoz glacier, which came down from an obvious though cloud-covered col—something well under 11,000 feet—between the Mont Pelvoz and the Dôme de Chasseforêt. I was still rather obsessed with the idea that Vanoise glaciers were all easy and the col was clearly a short route to Pralognan; so after lunch we started up to it in a brisk snowstorm with a compass at the tail of the rope. The ascent was easy, and on the descent our luck held. After being headed off by an icefall in the mist, we hit a slope of rock and rubble between two rather ugly glacier snouts, which brought us down below the clouds. Looking back I retracted my doctrine of the Vanoise glaciers, but I fancy that without it we might not have come over. After that, track-finding on steep ground with shocking rain and mud in the forest were the only troubles. By 5 o'clock we were in the sodden Pralognan meadows among the pensionnaires who had just come out under hoods and umbrellas.

After several years' more or less involuntary experiment, a little of it in Norway, I am now clear that you get satisfaction out of ordinary cross-country work in something like the inverse ratio (as we dons say) of the amount of detailed knowledge with which you start. With the ripening of this opinion I find my view of climbers' guides changes. It is of course convenient to know that peak X has been climbed from Y, by way of its P.Q. ridge; to know, say, about as much as you can find in Ball and carry—for a whole tour—on the back of a postcard. Yet the days on which such scraps of information failed or were misunderstood are often the best of all. As for the dotted lines on diagrams, the 'conspicuous red towers,' the 'second couloirs on the left from the Col des Chamois,' and all that race—no doubt they have their uses, especially for the greater mountains or when you

are trying to get off the unknown side of a peak towards evening, but they are uncommonly hard to identify, especially if you only get up under your mountain the night before the climb. Of course, if you go short of facts and do very little prospecting, you will shorten your list of peaks. Sometimes, perhaps, you will get on to the wrong peak, as has more than once happened to our party. This annoys you at the time, but is very pleasant in retrospect. As a compensation you suffer very little from that dreary feeling of artificiality which comes over most of us, I suppose, when reading in one of the more specialised climbing journals how the third hand-hold in the final chimney of Smith's climb has of late become greasy.

This excursion was suggested by the necessarily rather impromptu style of much of our climbing last year: we started ill-prepared and the weather drove us into some unexpected places. The Grande-Casse from Pralognan, however, was in the original programme; so on the evening after our mud-slide in the forest—a fair Sunday evening—we moved up to the Felix Faure inn on the Col de la Vanoise. There we learnt what we should have known before, but didn't—that to cross the mountain from the N. was an excellent climb for a cold season. So we went to find the way to it by candle-light. The slopes up from the beautiful little Col de la Grande-Casse are steep, and the rock, where it came through its sheathing of firm snow, was mostly rotten. In a good season I should expect plenty of ice and loose stones: in 1913 you had both, but in no great quantity. We spent a good part of our three hours on the face in kicking with the toe straight uphill. There were several parties on the mountain before us that day—one on our own route who nearly killed us with stones—but they had all been driven down by a wind which was still searing the ridge when we got there at 8.20. Happily it fell soon afterwards and we were able to get half an hour on the summit in niches scooped in the snow.

As a set-off to its gift of improvised routes, 1913 robbed one of much good bathing. Here we had been five days on foot without a single bathe in the open. Descending from the Casse we found sun on the Lac Long, just below the moraines, so went into it; but there was a fitful piping wind, and the sky was already being blurred over for rain. The rain began towards night when we had moved on an hour or two to Mme. Richard's inn at Entre-Deux-Eaux. We were indifferent, for Madame had brought over the passes a particular still Asti—not too sweet—and her cooking was adequate.

Next day it rained as it rains on the Sty Head, only not so salty, and we came down with full boots, seeing nothing, to Termignon on the Mont Cenis road, the winter home of Charles the Rotter, of Hell's Combe. There another Mme. Richard—the widow—at the sign of the Departure for the Vanoise, took us in and dried us like a mother. She discerned in me the sympathetic householder, so, when the others had gone to bed, we two sat late together and talked like the wearisome grown-ups in Heine —

Wie Lieb und Treu und Glauben
Verschwunden aus der Welt,
Und wie so teuer der Kaffee
Und wie so rar das Geld!

Only the dear thing is not coffee but firing, when you have no man to cut it for you in the woods of the Commune: “and what they make me pay for charcoal, sir, you would never believe.”

Some twenty-eight hours later—at 3.10 A.M. on the Thursday—we left Bonneval-sur-Arc with perfectly open minds. The Wednesday had been spent, half in a cold motor-diligence and half prospecting about the village. We felt that we must get over into the warm light which I always connect with the Italian side, and generally find there. At the worst, we thought, we could cross the Col du Carro, at the best the Levanna itself into the Val d'Orco—a new valley which is always good. When we came to the parting of the ways at 5.0 it appeared safe to follow the Arc up towards the glacier of its source and the Levanna. If no summit of the Levanna would take us we might hit the Lost Col which lay, as we had read, between the central and E. summits or the Col de Girard at the S.E. corner of the big névé. As we came over the swell of the glacier we could identify the notches of the Col de Girard, but the Lost Col we never saw until we walked into it. All about the crags of the Levanna, and over the upper névé, lay one of those white viewless clouds that you can hardly distinguish, when you are in them, from the clean snow of a wet season; so that at times you only know by the feel whether you are walking up hill or down. We took a rough bearing by map from the highest identifiable rock on the glacier bank and crept on in the cloud for over an hour. We knew that our col should be a marked gap, through which most winds must suck, and we agreed that the wind-marks

on the face of the snow should lie with their axes pointing towards it. It may have been sound argument, helped by the compass, or it may have been luck: anyhow at 8.30 we came right on to the col—it is perhaps 200 yards across—and peered over through the mist, which was shallow on that side, down what seemed an endless couloir running steeply into the sunlight below. As the cloud showed no sign of lifting, we abandoned the peaks and began to cut warily over the lip of the couloir. We cannot have gone down many hundred feet when the slope eased, the snow softened, and we found we could glissade. For almost 1000 feet we glissaded on the rope. Then we halted to lunch on a warm rock-patch beside the couloir. That was a very long halt. Then we went down each for himself. Below the true couloir a practicable snow-tongue ran to the upper edge of the pines on the cattle alp, ending at a point about 8000 feet by aneroid below the col.

We gave thanks, though our shin muscles were tired, and ran down to bathe in a pool, just within the edge of the woods, looking out over meadows through which the Orco runs—a stream of living water—by isolated substantial farmhouses; a contrast as clean as you could desire with the village of Ecot on the French side, the highest village in France, which crouches in gregarious poverty among the rocks.

From Ceresole (in the Val d'Orco) to the Piantonetto hut at the back of the Cogne peaks is a good day's work, however you take it. Although the Colle Perduto had been an easy day, we failed to start next morning before 8.30: we only got to the Piantonetto—not the easiest hut in the Alps to find even if you have been there before—about the same time at night. It is a walk on the King's tracks most of the way. You rise sharply from Ceresole and then coast round the heads of two or three glens almost on a level; rise 1500 feet over a ridge; drop 1000 to the Alp of Gay, climb again and lose the track at the foot of a 1000-foot snow gully leading up to the little Bocchetta della Losa, which is first cousin to a Dauphiné brèche. Fortunately, memories of 1899 helped us to identify the Bocchetta, otherwise we might have missed our climb on the Saturday. But it would have been worth it, for this Friday's walk, until boredom set in at the gully, was one of the great things of the season. The air was alive with light; as each steeply-falling ridge was turned from glen to glen, you looked out deep into the haze of the Piedmontese plain; and the day ended with just such another view—out

into the moonlight over Noasca and the lower hills from the door of the hut itself.

As we got to bed rather late and had not many thousand feet to climb over the Grand St. Pierre, we were content to get away at 5.30. We soon fell into impromptu again, missing the easy way up the rock-wall which supports the Teleccio glacier, and making a rock-climb out of it. Werner said I did it on purpose to illustrate some point in the use of the knee about which we had differed in a recent argument; but this was not so. In sunshine on the glacier-edge, with the S. rock-face of the St. Pierre right ahead, the postcard of condensed climbers' guide came out and we argued again. As usual, we couldn't fit the guide to the face. To put our route into guide-book form, I should say that we climbed the face of the W. ridge and a few hundred feet of the ridge itself up to the summit; straightforward, interesting climbing all the way, warm rocks, and very little ice. There was some good work towards the finish, though how a narrow ridge came to provide what one would call in Cumberland a two-storied chock-stone pitch, with an iced chock-stone, I can't quite make out. But there it was, and a very neat place too.

On top of the St. Pierre I made the acquaintance of Josef Knubel, who, with Todhunter his employer, had just been driven off the Chamonix Aiguilles by bad weather, for the second time during the season in Knubel's case. It seemed that people were flying S. just as we were moving N. Cogne was full. Was Yeld there? How should he not be there in the second week of August? Then, since we meant to stay out so long as there was any daylight, would Todhunter and Knubel, whose intentions were different, beg Yeld of his charity to make his Cogne provide beds for four? They would: so that was all right, and we could dawdle for an hour on top, go slowly over the snow-powdered slabs of the N. ridge, work at leisure down doubtful rocks on the W. face, lunch without hurry on the moraine, wash linen—that is, handkerchiefs—in the Valnontey torrent when we got to it, and yet not be late for dinner.

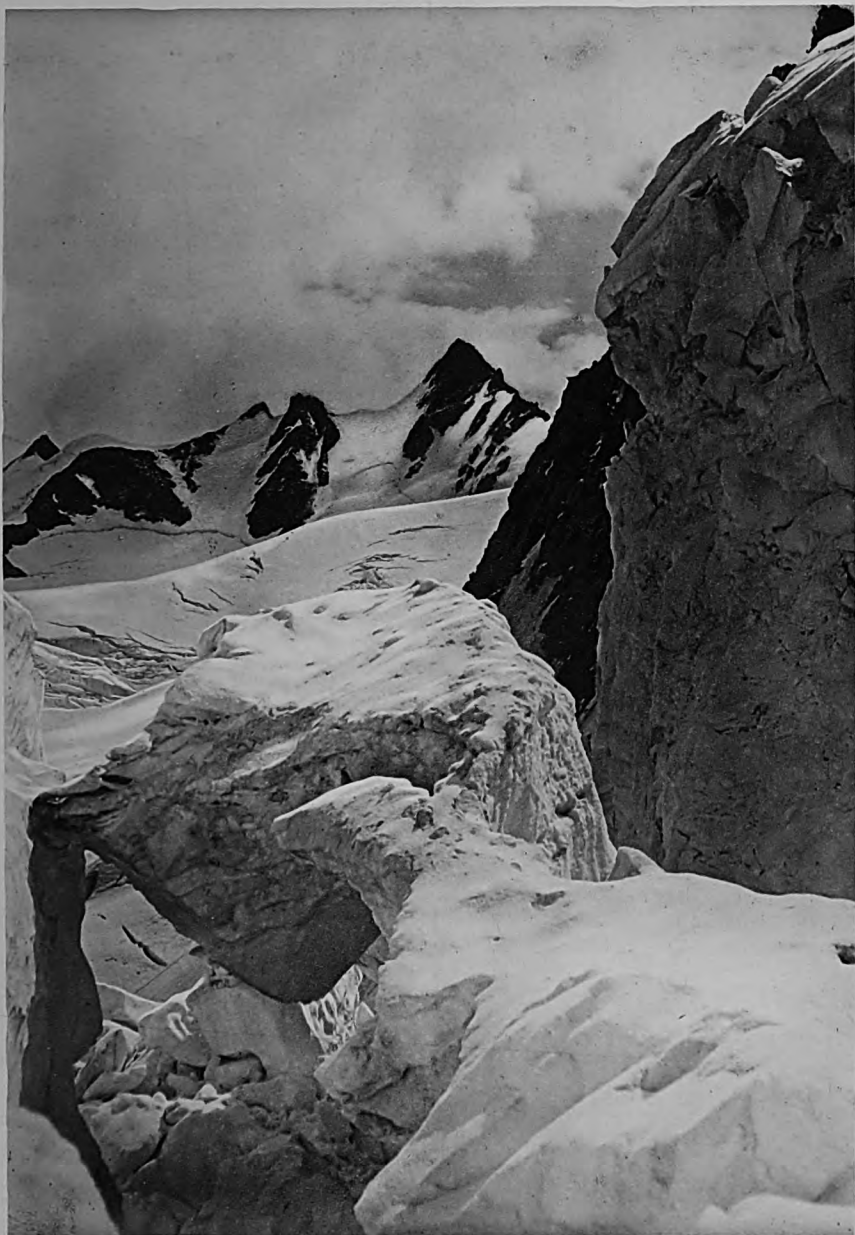
Besides Yeld there were other friends at Cogne. We spent a whole Sunday there, and on the Monday climbed Mont Emilius by mistake on our way to Aosta. It was this way: we had got over the edge of our good maps, and I had based a dogmatic (and false) opinion on a hurried look at a bad one. We meant to climb the Becca di Nona, which is 1400 feet lower than the Emilius, but only discovered our mistake when we got on to a col S. of the Emilius, itself higher than the Nona. We had

started after 5.0 : we had dawdled : I had put my head into a cool stream at 7 A.M., and we had had a long discussion as to where we would breakfast—both bad signs. So when the mountain began to seem improperly distant, high, and laborious, we had credited it to vice and a late start. We came up the easy S. ridge tired and empty ; the summit breaks away in tremendous cliffs on the N., and there, nearly two miles below us and five miles away as the crow flies, was the market-place of Aosta. That kind of view from the high places over “ the realms of those below ” is extraordinarily moving. When I am asked the impossible question, “ But what is it you climb *for* ? ” I am now half ready to say, “ I climb in order that once in ten years I may look down 10,000 feet into the market-place of a favourite town.” It would be as true as any other short answer.

Over the way slow thunderous clouds shifted heavily on and off the summits of the Central Pennines ; except the Matterhorn, we saw them all as we rested by the statue of the Virgin on Mont Emilius. They were not welcoming : their thunder rain caught us once not far below the rocks, once among the upper villages, and once again on our last half-mile into Aosta, between 7.0 and 8.0 at night, when all along back streets we dodged the foul Aostan waterspouts.

Our chances of a climb on the main ridge of the Alps seemed poor, but there was no harm in going to look at the S. side of the Matterhorn. The nucleus of our party is incredibly ignorant of the Matterhorn. Werner and I had talked about the Italian side, on and off, for twelve years ; but as we had almost always declined to sit under a peak until it got tidy, so far it had escaped us. It escaped us again in 1913. We got to Valtournanche on the Tuesday night ; started on Wednesday morning with the notion of taking the Château des Dames on our way to Breuil ; were caught in a fine rain before 6.0 in the morning ; became desperate, and crossed the Théodule in cloud that afternoon. At Zermatt—it was August 20—we were told that no one at all had been up the Italian side ; so it was just as well that a party, three of whom were quite ignorant of the Matterhorn except from below, had been conducted away from it.

Day after day we had discussed the chances of a final collapse of our season ; now we thought the collapse had come. People in Zermatt were depressed, those who had come from the Oberland still more grey. But our very first morning was so fine that we began to say “ Just a little col over to Saas, and hang the snow-plunging.” Reade, who was at the Monte Rosa



C. F. Bennett, photo.

Swan Electric Engraving Co., Ltd.

*Grand St. Pierre,
from foot of N. face of Roccia Viva.*

out of a job, let us know that he too would like a walk. We went together to the Fluh Alp that evening. Someone said he had got a climbers' guide from his bag in Zermatt—we had been free from luggage since Modane—and that there was a face climb on the Rimpfischhorn from the Adlerjoch. It is always pleasant to make these striking discoveries about populous districts. We agreed to keep that up our sleeve; but by the time we got to the Adler, after a moonlight ascent of the glacier and a clean dawn, it was the recognised day's programme. If there had been no climbers' guide we should, I believe, have got to the top sooner, but after a much less interesting climb. All day we were trying to be correct, and all day we were making variation routes. Reade and I were at the head of the now rather long party—five is many on iced rocks—and we agreed that the proper thing was to climb up direct from the col. Anyone who has made the climb or recalls the profile of the peak will realise that, after a certain point, this was a mistake. The tail of the rope realised it while I was pawing about on the face, but it was too well-bred to say much. Reade and I made two false starts, and then, moving a little to the right, but not enough, attacked an iced gully in the belt of cliff above us. It steepened as we went up it and ended in a chimney and a 12-foot iced wall, which was really troublesome, because the point of attack was a slab—not horizontal—covered partly with ice and partly with loose snow. However, the leader could belay while he cleared the slab and wall, and after some twenty minutes of cautious work he got up. The tail of the rope said it was cold, and that this was all very well in Cumberland. After that we went pretty straight up steep snow, broken by transverse walls of rock, some of which took a little climbing. The guide said we must not get mixed up with the left or S. summit, but I have never found it a simple matter to locate summits from a really steep face below them. In fact we got left of the left-hand summit at a point where, to gain the ridge, you had to pull over a little rock cornice. We thought of following the crest, but were checked by a steep bit which a leader could not climb alone. As between Reade and me it was clear who must stand on who, if it came to manœuvring, and when after consultation Reade said that, in his judgment, tricks of that sort were out of place—in which he was quite right—and quoted accidents in support, we crawled round the flank of the summit on to the ordinary route and so came on top, 5½ hours from the Adlerjoch.

On the descent Reade led down a much improved line: but still our long party took nearly four hours over it. I

understand that the face has a reputation for falling stones. None fell in the ten hours of our wanderings there. This was one of the good things of the season.

It was 7 o'clock before we left the col, and 9.0 when we tumbled up to the Britannia hut. The Britannia hut, as we found it, might well be used as an argument against climbing in a civilised country ; there were fifty-four people inside and for my part I preferred to roll up outside in my spare clothes, and a blanket when I could get it, until the Strahlhorn parties began to vacate bunks in the early morning.

After lunch at Saas a question of principle arose. Reade had some peaks on his private list, 4000m. peaks I think they were, over which he suggested we might well go if we wanted to get back to Zermatt. He said that in two or three days the Schalligrat might be clean if the weather held. He pointed to a hut "sown in a wrinkle of the monstrous hill" above us as the jumping-off place for his peaks. Reade then went out and we debated the matter. It was suggested that the hut was far and the day hot, and that we, like the man who shot the hare, had heavy packs ; it was indicated that most of us had never seen the S. face of Monte Rosa and that the next few days were our chance ; it was passionately contended that a prompt return to Zermatt would be a concession to 'centrism,' and that Italy was calling over the Monte Moro. The coalition of passion and idleness won ; Reade hurried off to catch his train at Stalden ; we slept that night at Mattmark and took a quiet walk over to Macugnaga next day. As you come down the Monte Moro towards the bottom, go right into the bed of the stream, and if you do not find the best bathing pool in Italy it is not my fault. The pool has a waterfall, a drying slab, and every convenience.

They told us at Macugnaga that the Sesia-Joch and the Parrot-Spitze, of which we had been thinking at Reade's suggestion, were none too safe, so we decided to push over to the Col d'Olen on Monday, follow the observatory porters up to the Punta Gnifetti on Tuesday, and then see what could be done. Sunday night was stormy and from 8.0 to 5.0 A.M. on Monday we could not tell from minute to minute how the weather would go. Most of us admitted later on that a dozen fair raindrops would have sent us back to bed, since we were in arrears of sleep. That was when we were trudging up from Macugnaga towards the Petriolo Alp and the Colle delle Loccie, bound for the Val Sesia. The Loccie was reputed a crampon climb and we carry no crampons, holding that for real continuous cross-

country work their weight is prohibitive. As things were in 1913, however, snow-plunging even on that final slope, which in nine years out of ten must be ice, gave us more trouble than step-cutting. The pass is superbly placed: from it you rake both the E. and S. flanks of the monster above you. We left about noon to strike across country beneath the S. face, contouring as high as we could towards the Col d'Olen. But below the glacier we were driven down into lost valleys and struggled up over stony wildernesses. I think we added that afternoon quite 3000 feet of ascent to the 6000 or 7000 feet of the morning.

On the Swiss side a good supper and a good bed at the height of the Col d'Olen would probably be marred by extortion, but it is different in Italy. I have kind recollections of the place, though they are mixed up in my head with the talk of a physiological friend who once spent a month between the col and the top of Monte Rosa, studying the gases in people's blood. He will try to pull you down from heights of remembered mountain ecstasy by explaining that, to the physiologist, all emotion at high altitudes is a form of incipient drunkenness. I will risk that explanation of my memories of our last day's climbing, on a porters' highroad be it remembered. As you are on the crest of a N.-running ridge in the early morning, the whole of the dawn is enacted on your right hand. Higher, as you top the Lysjoch, you break suddenly through the circle of peaks which stands about one of the most splendid, if one of the most familiar, of the high snowfields in the Alps. The sporting element came for us in the traverse from the Punta Gnifetti over the Zumstein Spitze to the Dufour Spitze. A sudden gale got up on the narrow and in places icy ridge of the Zumstein Spitze: the rope stood out and between us and hummed, and we had to climb with care. By the Grenzsattel and up over the comb of the Dufour Spitze, fresh snow added a little difficulty and interest to the rock-work, as it did again on the ordinary way down in the afternoon. After that, hot snow-plunging which needs no description. When this was over, every man did as he pleased. I, having taken tea, slept on the stones of the Obere Plattje and delayed the party half an hour while Bennett did something photographic. Werner complained that there had been no bathe since Sunday, dived into one of the ponds on the face of the Gorner glacier at or about 7 P.M., and stood on the rope to dry. Muir began a calculation, which had been threatening for some time, of the number of hours' sleep that he had got (a) on an average of the whole tour, and (b) since we left Zermatt on the Thursday.

The physiologist of whom I have spoken says he has established and explained the fact that arithmetic is difficult above 8-9000 feet. ¶ This may be why the calculation was only completed on the Lake of Geneva. It appeared then that there was no case against the management of the party under (a) ; if there was something of a case under (b) there were also points for the defence. We had played a game against a bad season, and we had won. So at least we thought, and so thinking were perhaps a little disposed to make fun of the misfortunes of better men who had played a better game and yet had lost.

A PLAYGROUND AT THE EAST END.

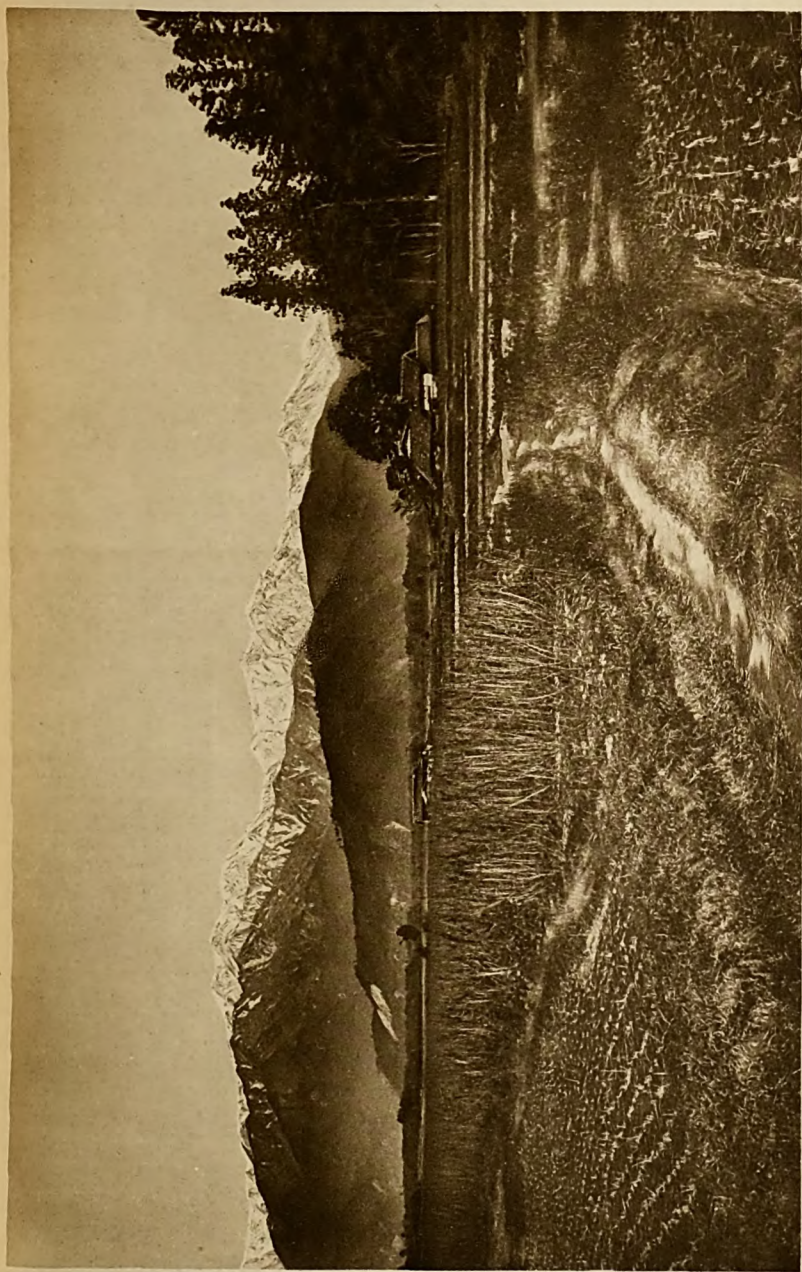
RAMBLES IN JAPAN.

By DOUGLAS W. FRESHFIELD.

MR. BAKER'S account of his walks in Japan, published in your last Number, incites me to send the JOURNAL some notes of my own excursions in that country during the past autumn. With the help of the Siberian Railway, Japan is hardly further from London than the Selkirks, and has come well within the range of our more 'eccentric' members.

On first landing in early September I found the weather so broken and the mists so constant that, acting on the 'best advice,' Mr. Walter Weston's, I gave up my intention of climbing Fujiyama and went to Pekin. On my return to Japan in October all the huts on the mountain had been closed, and, again acting on Mr. Weston's advice, I substituted a flying visit to the more remote Japanese Alps for the continuous and monotonous climb of 10,000 feet up the famous volcano, one of the chief interests in which to me would have been my fellow-pilgrims.

Like Mr. Baker, however, I paid a visit to the admirable hotel which adds to the picturesque merits of Miyanoshta. This mountain village, now established as a Tourist Resort, lies high in the centre of the Hakone hills, a group standing apart, separated by a broad level from Fujiyama, and washed at their eastern base by the waves of the Pacific. Their tops reach about 4500 feet, but the valleys are high and the scenery recalls at times that of the Cumberland Lakes. Here too are bright streams, picturesque woods, copses rich in ferns,



The Japanese Alps from the East.

and green heights. But the soft grey, or yellow-green, of the dwarf bamboo, which so often takes the place of grass, gives the upper slopes a tone of their own, often reproduced in the native pictures of Japanese scenery. I would warmly recommend fair walkers to do as I and my companion did, extend the twelve-mile walk from Miyanoshita to Hakone and back by climbing up the steep path to the Ten Provinces Pass, and then, following the ridge to the west to the gap crossed by the old paved Tōkaidō road. By this extension the Rambler escapes from the narrow circuit and confined horizon of the basin of Lake Hakone and the nearer hills, and gains an entrancing view over miles of picturesque coast-land and shining ocean, rocky promontories, scattered islets, green valleys, gleaming rivers, and distant ranges steeped in the translucent atmospheric colour characteristic of Japan. In our case the gain did not stop here. The delay brought us, after sailing up Lake Hakone, to the strange 'solfatara' the Japanese call 'Big Hell' just after sunset, and we lingered long to admire the effect of its fumes coloured red by the afterglow, and spreading like a thin veil in front of the mother-of-pearl sky and luminous blue ranges of the west, an effect as weird as any reproduced in the national art. We lingered in fact so long that we had to run to get over the precipitous part of the hillside before darkness made the narrow path difficult.

Another pleasant excursion from Miyanoshita is to cross the stream, and, passing a tea-house, climb the exceedingly steep bamboo-coated hillside opposite the village, bearing to the right until the ridge is reached just east of an eminence (Myōjō-ga-take). A scarcely traceable track leads for a mile or two along a very narrow hog's-back to the higher top known as Dai or 'The Terrace.' The traveller has before him all the way magnificent views of Fujiyama, and a wide prospect over the country and coast in the direction of Kodzu. A direct descent may be made either into the Miyanoshita glen higher up, or, to the north, to the low country and an interesting temple.

Murray's Handbook, thanks to its present Editors, is an excellent guide to the mountaineer. I owe to it what is, perhaps, the most charming approach to Fujiyama, that from Kōfu by Lake Shōji. Kōfu itself is an almost untouched specimen of a Japanese country town, with a castle hill, broad streets, gay with shop-signs and flags, cheerful inhabitants who delight in processions and dances and make delicious

sweetmeats, picturesque local industries, and one or more excellent native hotels. Situated on a fertile upland plain, it is surrounded by fine rocky mountains and looks over the nearer ridges to see the sunset reflected on the snowy head of Fuji.

A country lane first traverses for five miles a cultivated plain full of farms and hamlets and roadside stores, then crosses a broad river and mounts to a village beyond which wheels cannot go. A beaten path climbs into a recess of the hills. From the first pass it sweeps round on a high terrace commanding fine views of the rocky summits behind Kofu and of the hills to the S. Then it plunges into a delightful glen where a dozen farms, with their scanty terraced fields, lie beside the stream. The landscape reminded me of a bit of Tyrol, warmed with the colour of Japanese life and atmosphere. The remote little hamlet boasted a school, a post-office, and a simple store.

The climb to a second pass was at first through the narrowing glen and a forest of old firs, lit up by streaks and patches of vivid autumn foliage, growing on the steepest of hillsides. The Japanese are singularly expert in constructing corkscrew zigzags practicable for horses despite the declivity. On gaining the grassy ridge the bright expanse of Lake Shoji, immediately at the traveller's feet, forms the foreground, while behind it the great pyramid of Fujiyama soars into the sky. From this point of view a considerable hill at its base forms an effective footstool to the mountain. A short run (Lake Shoji is 3160 feet above the sea) leads down through the huts of a poor fishing village to the shore, where a boat will be found ready to ferry the party across to the solitary hotel on the opposite bank. The wonderful view, framed in the fir trees of its terrace, has been reproduced in Mr. Ponting's photographs. Next morning, by rowing or sailing down the three western lakes of Fuji, and walking over the old lava-bed and little pass that severally separate them, one can make half the circuit of the mountain, reach Kami Yoshida, and, taking a private car on the tram, gain Gotemba and even Yokohama, or Tokyo, the same night.

Of the Nikko walks I can add nothing to 'Murray.' I may, however, suggest that it is quite worth while, in place of taking the train thence to the next mountain resort, Ikao, to hire the hotel motor and drive the seventy miles. For the first ten miles the way lies along the great cryptomeria avenue, and then follows rural lanes and by-roads with quite good surfaces, through pleasant villages and busy country towns



Rock Pinnacles, Myogi-san.



Village Street, Ikao.

and mulberry fields. It is a silk-producing and apparently prosperous district, and many of the brown cottages with thatched and iris-ridged roofs add to their picturesqueness by the waterwheel attached to them that turns the spindles. In one point I was reminded of England. The road twists and bends at sudden angles like our own lanes, probably for the same reason: because it has grown, and not been made by an authority superior to the claims of private ownership.

Ikao is reached by a long ascent. The village, a collection of large bath-houses and shops, full of keepsakes for the visitors, is built in a picturesque staircase-street high up on the slope of a volcanic upland, among gardens and orchards, and commands a noble view to the northward over hill and dale. The steam from the natural hot springs rises from open channels between the houses and in front of the gay shops.

Some good, if short, climbs may be found among the peaks, but the indispensable walk is up the hill and across the great meadow, a weird place, which lies ringed round by a circle of volcanic heights, a mountain wall which may remind an English traveller of the background of one of Burne-Jones's pictures. At its further end a large tarn adds life to the landscape, and a little inn at the lake head supplies an excellent European luncheon. A mile—a very steep mile—beyond and below it on the southern slope is a strange temple, embedded in and overhung by the most fantastic crags, a scene literally reproducing what one had always been disposed to hold the unreal landscapes of ancient Chinese art.

Somewhat further south, within a long walk from Ikao, the mountaineer will come on the still more remarkable rock-scenery of Myogi-San. Its crags have been called the Japanese Dolomites, although geologically they have no claim to the title. Here there may still be a playground for the gymnast—though many of the 'bad places' have already been provided with chains for the help of Japanese pilgrims in search of the picturesque, and Mr. and Mrs. Weston have been busy among the more forbidding pinnacles. One of the slippery rockfaces that have to be traversed was indicated to me as that 'where the Daimio wept.' There were no chains in that Daimio's day! Another was pointed out as that 'where the Ambassador stopped.' The latter statement obviously referred to Lord and Lady Bryce's visit, a few weeks previously. It is only fair to our late President to add that on further inquiry it proved that an inopportune rainstorm had been the sole cause of his not going on to the crowning crests.

The view from the upper ridges of the mountain of its quaint pinnacles and natural archways and tangled forests is well worth the climb. I know nothing quite like it. The village of Myogi, its temple buried in a grove of enormous cryptomeria; its homely but good and thoroughly national inn, with its dainty rooms, its miniature garden and fishpond, where the big carp break the stillness of the night with their splashes, ought to realise every expectation the visitor may have formed of native Japan.

Apart from the by-corners just described, my principal hill walk was a three days' tramp into the heart of the Japanese Alps. This granite chain, with peaks attaining 10,000 ft. in height, lies a full day's journey by train west of Tokyo and is accessible by two railways in about equal time. Mr. Weston has described it in 'Murray,' and more fully in his volume on 'The Japanese Alps.' Considerable changes, however, have taken place since the latter was written. There is now a carriage road from Matsumoto up the valley of the Adzusa-gawa to a point several miles above Inekoki. This road is being carried over the chain by a pass known as the Nomugi-toge. A good cattlepath has also been constructed from Shimashima over the Tokugō-toge and the river bridged near Kamikochi, making that centre of the Japanese Alps reasonably accessible to travellers.

My plan was to cross from Shimashima the Tokugō-toge (toge=pass) to the headwaters of the Adzusa-gawa and then descend through its long gorges in two days, returning to the same spot. It was full late in the season, and my companions' time and, perhaps, my powers were limited. Moreover, as a party of British naval officers who had tried to climb the peaks ten days before had been beaten back by ice-coated rocks, I did not feel called on to put them to the test.

We approached the mountains by way of Nagano, an excellent example of a Japanese town, planted against the side of a hill, on which stands a picturesque group of temples. The surrounding hills resemble Apennines. But from the train at the next junction-station a glimpse of snowy peaks is seen. Then the line is involved in lower hills, among which it climbs steeply over a romantic little pass, known by the delightful name of 'The Hill where the Aunt was abandoned' (see 'Murray' for the legend) before it descends into the broad valley which skirts the eastern flank of the Alpine range.

Our immediate starting-point for the hills was Matsumoto, a large town, with a station on the Central Railway. Young Japan is alive to its picturesque possessions. On the platform



On Myogi-san.



On Myogi-san.

you may read 'Change here for the Japanese Alps.' All notices at stations are in English as well as Japanese, and you will generally find a list of 'Objects of attraction in the Neighbourhood'! The hotel-towel (towels throughout Japan serve as a means for advertisement) has stamped on it 'Japan Alps Station.' Here you may hire a conveyance—which was once smart—for the thirteen miles' drive across the upland plain which divides you from the mountains. On emerging from a long suburb the road passes through numerous hamlets with crooked corners and between fields and farmhouses, with here and there a silk factory or a temple half hidden in its grove. In front rises a snowy skyline; broad bold shoulders and wooded slopes fall from it towards the plain. On one of the hilltops a forest was blazing fiercely and sending columns of yellow smoke into the sky. The general effect reminded me of the Bergamasque Alps seen from the Lombard plain, and the proportions were not dissimilar. The parallel may be pressed closer; the highest peaks have much the same character, except that the Japanese Alps, being in a more southern latitude, though they abound in snowbeds, fail to produce an authentic glacier.

My companions were Mr. Eric de Bunsen, of the British Consular Service, and the excellent Komori-San, a Japanese courier procured for me by Mr. Weston, whose services were invaluable to me at all times and who did not flinch from an unusual undertaking. At Shimashima, a village perched above a waters-meet in the gate of the hills, we found a rustic inn. It was kept by a good woman who did her best, not without success, to make her guests comfortable. Above the inn was a fine schoolhouse, with a playground fitted with modern gymnastic appliances.

Next morning we had before us a long ascent to a pass of over 7000 feet. The day broke wet with rainstorms of the vigour peculiar to Japan and Ruwenzori. We waited till 9 o'clock and then, encouraged by our porters, braved the weather. We had the reward we deserved; after a time the rain subsided, grew intermittent, and finally left off. Nothing could have been more beautiful than the first part of the walk. It was early in November. The well-made modern path gave us leisure to use our eyes. The precipitous walls of the gorge afforded a feast of the most brilliant autumn colours, reds and yellows. Firs stood out upon the crags with a regard for artistic effect they show only in Japan and Italy. Every corner displayed a vignette that surpassed the last.

Presently the scene gained human interest. It was enlivened by a crowd of lumbermen, nearly naked but for their straw capes and round hats, or clad in crimson tunics, who were busy helping great logs down a torrent swollen by the recent rain. Long was the ascent over the forest path, welcome the lunch round a fire in a wayfarer's shelter, tedious the final climb up interminable zigzags, somewhat frigid the arrival on the pass, where the wind blew over fresh-fallen snow. But a few yards below we were in shelter and able to enjoy the fine sight of an apparently virgin valley 2000 ft. below, and the bold crags of Hodaka-yama (10,200 ft.) just opposite and still nearly 3000 ft. above us.

After reaching the valley we had still a good three miles of flat walking beside the river before we reached in the gloaming, in eight hours from our start, the wooden inn and bath-house of Kamikochi, the Zermatt of the district. This solitary dwelling, in external aspect strangely like a Swiss inn, lies secluded in a region occupied only by hunters and a few shepherds, miles from any other human habitation or cultivation and only to be reached over a high pass or through a deep gorge. The sleeping accommodation, however, is adequate, and the large hot bath most enjoyable. It is desirable, however, to bring provisions. The place is much frequented in summer by climbing parties of Japanese students and artists.

Next morning the ground was white with frost. We were in a flat-bottomed upland valley, where the stream meandered at large over a stony bed and all else was covered with dense forest. In the background towered grim granite ridges. Our course lay down the valley; after about an hour the mountain walls drew together and dropped into a deep gorge. Mr. Weston tells me there used to be a path down it. If so, it had been carried away or blocked by landslips at the time of our visit. We had to wander up and down over spurs, round deep bays, or across the face of the almost perpendicular slopes left bare by recent or more ancient earthfalls. The foothold was always sufficient, but there was sometimes little to spare. Plenty of the places would, before mountaineering came into vogue, have been described as spots in which 'a single false step would be fatal.' But there was nowhere any excuse for a false step. We had one noble view of the cliffs of Hodaka-yama closing the valley and the glimpses into the gorge were wild and romantic. But after a time the frequent ups and downs, the vertical staircases where the tree-stumps served as steps, or the still more aggravating muddy



Near Kamikoochi.



Kamikoochi.

banks grew tiresome. Presently our tiny track met a better-marked path. At the junction was a signpost giving the distance to Shirahone and expatiating on its merits as a quiet and healthful retreat in a style, as translated to us, quite worthy of a Tourist Agency. We were now on the path of a recognised native pass, the Abo-toge. But our fatigues were not over. After a steep descent a thousand feet of uphill had to be faced before we reached the brink of a deep hollow and saw the wooden roofs of the Baths of Shirahone at our feet.

The result of our day's walk, and more or less of all my mountain walks in Japan, was to impress on me the great influence of an excessive rainfall in modelling the surface of the hills. The valleys are deep and narrow, their sides torn and gashed by streams and waterfalls. The ridges, except in the case of the loftiest crests, are comparatively smooth and rounded. The distinctive charm of the scenery lies in the wooded gorges, with their exquisite combinations of crag and brilliantly coloured foliage. The upper glens and the forms of the peaks cannot vie with those of the Central Alps; they are more on a level, literally as well as picturesquely, with those of the Maritimes, or of the range to which I have already compared them, the Bergamasque Alps. The landscapes in the district I traversed were as a rule confined; there were no general views of a number of summits. The northern end of the chain seen from the neighbourhood of Nagano looked very inviting, a shapely double peak, Orange-yama, 9974 ft., being a conspicuous object.

The bathhouse of Shirahone lies in a bottom between steep banks. It is much frequented in the summer, despite its somewhat inaccessible situation. Here again we were comfortably housed and enjoyed the privilege of the social bath, which is the rule in rural Japan. The spot is, as Mr. Weston truly writes, 'out of the world to a degree.' While we were lacing our boots on the doorstep before leaving, three damsels, drawn by the unwonted sight from their morning bath, watched our proceedings with the innocence and in the costume of Eden.

Next day we followed the river through a succession of fine defiles. In the upper portion the path had been protected by a series of wooden galleries from the frequent earthfalls. But most of these were in ruins. In other places it was carried on long platforms skilfully constructed above the water. The higher slopes were already bare, but lower down the autumn tints were in full blaze. After some four hours' steady

march we came, among picturesque rocks, on a wayside inn and a new carriage-road. It climbed high to avoid a last defile and then brought us to the large and prosperous village of Inekoki, where our carriage was in waiting. We drove through Shimashima, packed up some luggage at the inn, reached Matsumoto by dark, and Tokyo next morning by the night train, in time to attend the Mikado's Chrysanthemum Party in the garden of one of the imperial palaces.*

The Japanese Alps are, it may be desirable to point out, singularly accessible by rail. From Kyoto and Nagoya there is the very beautiful Nakasendo railway, passing through a delightful succession of pastoral landscapes and romantic ravines and in sight of the second mountain of Japan, Ontaki. From Tokyo you have a choice between the line by Kofu, passing through many tunnels and past the charming Lake Sowa, and that by Myogi, Karuizawa, and Nagano. Karuizawa is the St. Moritz of the Farthest East, a group of hotels on a plateau 3300 ft. above the sea, where invalided missionaries recruit during the summer months. The Myogi crags and Ikao are both within a day's journey, and there are many short climbs near at hand; the principal is up the still active volcano of Asama, 8130 ft., the crater of which is used as a means of suicide by Japanese brides who cannot get on with their mothers-in-law and desire that their ghosts may haunt them, or lovelorn couples whose parents forbid their union. Till recently such unfortunates leapt down one of the lofty waterfalls near Nikko, but guards having been placed round this spot, they have been driven to the '*facilis descensus Averno*' offered by Asama.

I would strongly urge on all visitors to Japan to take advantage of the facilities for travel which now open out the interior to every visitor who can accommodate himself to novel but not uncomfortable surroundings. The standard of comfort in most places is far above that in out-of-the-way parts of the Alps, such as the Engadine was in my youth. The tourist who confines himself to the Treaty Ports and goes about grumbling that 'the Real Japan' is at an end makes a most pitiable waste of his opportunities.

On my return to Tokyo the members of the Japanese Alpine Club were good enough to invite Mr. and Mrs. Weston and

* Good photographs of Hodaka-yama from the Tokugo-toge and the S.W., of the gorge of the Adzusa-gawa, and the Baths of Shirahone will be found in Mr. Weston's *Japanese Alps*.

myself to a banquet at a famous Japanese restaurant, which (like our 'Cock' or 'Cheshire Cheese') prides itself on keeping up old traditions. The room we dined in was walled by silver panels delicately painted with flowers; it looked out on a broad moonlit river hung with lanterns. The viands were choice and rare, the speeches models of brevity. I may venture to quote that in which my health was proposed: 'One has come down to us from 20,000 ft., but the love of Beauty and Pure Colour will soon carry back the mountaineer to his own sphere.' I was further charged to convey to the parent Club the cordial greeting of one of its youngest children.

After the speeches some charming ladies executed the Chrysanthemum Dance, while the photographer took a flashlight view of the company. Unfortunately he failed. It was the only mishap of an interesting evening. I cannot therefore reproduce the scene. To do so adequately, however, might have required a Super-Whistler.

I cannot conclude this brief note on my modest excursions among the mountains of Japan without recalling the universal kindness and courtesy of all we met, whether in inns or on the open road. The Japanese have for centuries been mountain pilgrims; they are now, for better or worse, adopting also the European point of view and treating their Alps as a playground. The idea of hill-climbing has to them never had any of the foolishness which it carries to some less intelligent people, and they are most ready to help any strangers who come among them, particularly Englishmen introduced by Mr. Weston, whose name is a household word in the Highlands.

CLIMBS IN THE SWISS PART OF THE MONT BLANC RANGE.

By J. W. WYATT.

THAT part of the Mont Blanc range which lies to the north of the Glacier d'Argentière does not appear to be so frequently visited by members of the Club as the more famous parts of the chain. It is, however, the happy hunting-ground of members of the Swiss Alpine Club, particularly those from the neighbourhood of the Lake of Geneva. Almost all the peaks are visible from the slopes of the Vaudois hills, and the Tour Noir itself can be seen from the streets of Montreux and Clarens.

Although none of the peaks reach the height of 13,000 ft. and the glaciers are comparatively small, the district has quite a character and charm of its own. With the exception perhaps of the Aiguilles d'Argentière and Chardonnet, the Tour Noir and the Aiguilles Dorées, none of the climbs are difficult, and as a centre for guideless expeditions it is hard to beat. It is served by three well-appointed huts—the Saleinaz, the Orny and the Dupuis; these, in the height of the season, are apt to be unpleasantly crowded, particularly the Dupuis, but I hear it is likely soon to be doubled in size.

I would recommend anyone visiting the district to provide himself with Albert Barbey's Map of the Chain of Mont Blanc, scale 1/50,000, 3rd edition, 1910; it is very complete and brought right up to date; also with that excellent little guide, 'La Partie Suisse de la Chaîne du Mont Blanc,' by Kurz et Colomb, last edition, published in 1900.

Lac Champex, one of the gems of Swiss scenery, is the only centre. I had visited it twice before, in 1904 and 1909, but, beyond the Aiguille d'Argentière and the Aiguilles Dorées, had done very little climbing there; having however rented a chalet for the summer seasons of 1912 and 1913, I determined to explore the neighbourhood more fully. Another reason attracted me to this part; when at school at Lausanne in 1874, I was fortunate enough to have as my French tutor Emile Javelle, whose descriptions of this district in his classic work 'Souvenirs d'un Alpiniste' everyone will remember and appreciate who, like him, loves the mountains.

My first visit was in 1904 with W. H. Gover. Driven away from the Riffelhaus early in September by bad conditions and unsettled weather, we shifted our quarters to Lac Champex, hoping for better luck; all we were able to do, however, was a guideless climb over the Pointe d'Orny, as the weather broke again with much fresh snow and drove us home. In 1909 W. H. Gover, C. H. Brook and I spent a few days there on our way to the Bernese Oberland; we had, as guide, Joseph Georges of Evolena, and managed two good climbs, the traverses of the Aiguille d'Argentière and the Aiguilles Dorées.

Leaving the Saleinaz Cabane on August 13 at 3.30 A.M. for the Aiguille d'Argentière, we ascended the Saleinaz glacier to the bergschrund at the foot of the Couloir Barbey, named after M. Albert Barbey who made the first ascent by this route in 1884. We were followed by two young Englishmen, without guides, who asked if they might be allowed to take advantage

of our tracks; they did not appear to have had much experience of the high Alps and showed, I thought, a considerable amount of pluck in undertaking an expedition of that nature—whether combined with wisdom or not is another matter.

Shortly after entering the couloir, which is steep and mounts for over 2500 ft. straight up to the summit arête, we heard a loud hum, like an enormous bee, close beside us and saw a stone, the size of a plate, whiz past over our heads; the sun had struck the rocks at the head of the couloir and showed us that we would have been safer to have made an earlier start! We bore off as soon as possible out of the danger zone up the right hand branch of the couloir to the rock buttress which forms the N.E. arête of the mountain, reaching it at 7.30 A.M. We climbed it for two hours, first over rock and then over steep snow, to the northern end of the summit ridge; ten minutes along this ridge, which was heavily corniced throughout, brought us to the highest point by 9.40 A.M.

At 11 o'clock we started down the N.W. arête; it was steep, icy and, in one or two places, rather nasty. Passing close beside the grand hanging ice-falls which form such a feature on the N. face of this mountain, we crossed the head of the great couloir that runs up from the Chardonnet glacier and turned off the arête, to the left, down a rib of broken rocks and snow that divides the upper portion of the glacier into two halves. We had to descend for some distance to turn this rock-rib and mount for three-quarters of an hour to the Col du Chardonnet, which we reached at 2.15 P.M., and the Saleinaz hut at 4.20 P.M.

On our way down we had noticed what looked to us like two ladies in black, with very short skirts, making their way slowly up to the col; these turned out to be two priests from, I think, Martigny, with their cassocks tucked up, on a holiday tour over the Col du Chardonnet and the Fenêtre de Saleinaz. They were a pleasant pair and we exchanged greetings and cigars while resting on the col.

The following day we left at 4 A.M. for the traverse of the Aiguilles Dorées. This fine rock arête consists of an extraordinarily narrow and fissured ridge of granite pinnacles and needles, nearly a mile long and extending from the Col Droit to the Fenêtre de Saleinaz. It runs due east and west and is divided into two unequal portions by a snowy shoulder or col, called the Col Copt; the western part contains the higher summits, Aiguille de la Varappe, Aiguilles Penchées and Tête Biselx, and the eastern portion, the Trident, Aiguille Javelle,

and Tête Crettex. The rocks and holds are excellent and sound and it affords the finest rock climbing in the district.

After a short three hours' trudge up the glacier, we reached the Col des Plines at the eastern extremity of the ridge; leaving our rucksacks we roped and climbed a steep ice couloir on the Trient side to the arête, where the interesting part of the climb begins. A succession of three steep chimneys led us to the first peak, the Tête Crettex; we passed underneath the Aiguille Javelle, as it was occupied by a noisy party of climbers and to have waited for them would have delayed us too long. From the Col Copt a short but steep blue ice-slope, requiring careful step-cutting, and a snowy shoulder brought us to the foot of the Tête Biselx, the top of which we reached at 10.18 A.M. Although only the second summit of the group, the Aiguille de la Varappe overtopping it by about 25 ft., it is by far the most imposing of the two and marks the central point of the ridge.

From the Tête Biselx we traversed a long and narrow ledge across the precipitous S. face of the mountain with one or two awkward places; one in particular I remember where we had to jump from one side of a steep cleft or couloir to the other and trust more or less to Providence to land safely on a solitary foothold on the further side! We joined the arête again at the Aiguilles Penchées, between which and the Varappe there was a considerable gap; in negotiating this we should have had to cross to the north side over some steep slabs, sloping the wrong way and covered with ice and *verglas*. These did not look very safe, so we decided to leave the Varappe alone; we returned to the Col des Plines by the way we had come and reached Champex, *via* the Cabane d'Orny and the Col de la Brea, at 6 P.M., the state of our fingers and clothes testifying to the exceeding sharpness of the rocks!

The season of 1912, as most of us found by bitter experience, was about the worst on record, even worse than that of 1910; although I was for over two months at Champex, I was unable to do any high climbing and had to content myself with botanising and rock-scrambling in the Val d'Arpette and the Combe d'Orny. Of these rock scrambles there are many, some quite interesting, and the views fine.

The traverse of the Mont Catogne, from the Col de Bonhomme along the arête to the highest point overlooking Martigny, is quite worth doing, and is, besides, very interesting for lovers of Alpine flora. Unfortunately I am not a geologist, but the formation is such that the flora of the limestone districts

as well as those of the primary rocks grow together ; Edelweiss is found in quantity, also *Potentilla grandiflora*, *Draba tomentosa*, *Androsace imbricata* (syn. *argentea*) and many others. I have also found there the pure white varieties of *Silene acaulis* and *Aster alpinus*.

The traverse of the Pointe des Ecandies from the Col des Ecandies to the Fenêtre d'Arpette, or *vice-versâ*, and the ridges on both sides of the Val d'Arpette, are worth exploring for off-day scrambles. The traverse of the Pointe du Zennepi, the highest point on the N. side of the valley, from the Fenêtre d'Arpette, following the arête more or less all the way to the top and returning to Champex by the wild little Lac du Dru and the Pointe de Bovine, makes a particularly fine walk. Another good climb from the Val d'Arpette is to cross the ridge of the Aiguilles d'Arpette, on the S. side of the valley, over the Aiguille d'Orny, returning by the Col d'Orny and the Fenêtre du Chamois. This last was practically the only decent expedition I was able to do from Champex that season.

Those who visit this district for climbing pure and simple when the hotels are full to overcrowding, and the epidemic of tourist fever runs through the whole native population, can have little idea of the quiet seclusion and charm of the place out of the regular season. In May and early June the weather is generally fine and the air bracing, and a walk from Orsières to Martigny, through Champex and down the Durnant valley, is delightful. The open glades in the larch woods are full of sulphur anemones and bell gentians, and the flatter meadows painted in sheets of pink with the little *Primula farinosa*. The mountains look their best before the summer sun has had time to melt the snows, and fine glissading can be enjoyed on most of the moderate slopes.

The most beautiful effect I have ever seen in the way of flower painting was on a walk I took with my wife up the Val Ferret from Praz de Fort during the latter half of June. It would be difficult to find in Switzerland a more beautiful expanse of meadow land coloured by masses of sub-alpine flowers of every kind and hue ; sheets of the white Paradise Lily, *Phyteumas* in variety, *Campanula rhomboidalis*, *Salvia pratensis*, *Rhinanthus*, *Pedicularis*, Hawkweeds and a host of others—a veritable paradise of flowers !

In addition to the usual examples of Swiss flora, the warmer slopes of the Vals Ferret and d'Entremont have a distinct admixture of plants of a more Southern origin ; that handsome vetch, *Vicia onobrychioides*, *Hyssopus officinalis*, *Ononis natritz*,

Campanula spicata, *Euphrasia lutea*, &c., are common on the warm dry slopes between Champex and Orsières.

Last season, 1913, although a distinct improvement on 1912, was very unsettled and the conditions rarely good. The month of June however was fine and the mountains in order, and some good expeditions were accomplished by those able to climb then. Having vainly waited all through the previous summer for the Tour Noir and the Aiguille du Char donnet, two climbs I had wished to do for a long time past, I determined to take the first opportunity of fine weather and suitable conditions.

On June 30, therefore, I engaged Maurice Crettex as guide, and started off from Champex soon after noon, *via* Praz de Fort, up the Saleinaz glen and reached the Cabane before half-past five. It was particularly beautiful that afternoon, a brilliant blue sky and a cool north breeze, blowing up the valley, tempering what is usually a hot and tiring walk. The Alpine rhododendrons on the slopes above the Saleinaz ice-fall were in full bloom and toned admirably with the cold green of the seracs below.

We had the hut to our two selves, the caretaker had not yet come up, but it was clean and in excellent order. Crettex, who is an indefatigable worker and a host in himself, soon had everything ready; we turned in early as we were to be up again by 11 o'clock.

We left next morning twenty minutes after midnight. There was no moon, but the stars were brilliant, the air crisp and the snow hard and in good condition. Skirting round the Tita Neire and the Petit Darrei, we reached the foot of the Col de la Grande Luis. The bergschrund here confronted us with a wall of ice some 20 ft. high, and it took us a little time in the dark to discover where we could cross; in one place a conical snow-slide had reduced the overhang to some 10 to 12 ft. and by cutting a few hand- and footholds and wedging our axes in the ice-wall, we got up without much difficulty. We worked up the steep slope to the col with the lanterns hanging round our waists, the only sounds being the chip, chip, chip of Maurice's ice-axe above me and the swishing of the snow and ice past me into the darkness below. We reached the top of the col at 3.20 A.M., just as dawn was breaking, and were met by a bitter north wind—it was much too cold to halt.

The usual way from here to the foot of the Tour Noir is to traverse under the rocks of the Grande Luis and work round



J. W. Hyatt photo.

Tour Noir, from Petite Fourche.



J. W. Hyatt photo.

Swiss Electric Engineering Co. Ltd.

N.E. arête of the Chardonnet.

below the Col de la Neuvez, but the wind was too strong for this to be pleasant, so we cut down an exceedingly steep ice-slope to the upper basin of the Neuvez glacier. The rising sun now caught the rocks of the Tour Noir and the hanging ice-falls of the Mont Dolent across the seracs of the glacier, and made them very beautiful; the Val Ferret was filled with rolling mists, and above them rose the Combin and Mont Vélan with the Cogne mountains in the distance.

We crossed the glacier to the foot of a rock buttress that runs straight up to the Col Supérieur du Tour Noir and there halted for breakfast, having been going steadily for four and a half hours. For an hour and a half we climbed this buttress which, although steep, was quite easy; there was no *verglas* but much snow on the rocks, and as we neared the top we had to fight against strong gusts of wind whistling down on us.

On breasting the col we had a magnificent view of the Aiguille Verte arête, its grand ice-couloirs glistening in the early morning light, framed in between the Tour Noir on one side and the Aiguille d'Argentière on the other. A solitary chamois was having a morning walk on the upper névé of the Glacier des Améthystes below, and, on hearing our shouts, disappeared in great bounds over the edge of the ice-fall. The Aiguille d'Argentière from this side presents quite an unusual appearance: a succession of dry red cliffs capped by a bonnet of snow, as described by a Swiss climber, '*elle fait un peu l'impression d'une vieille Anglaise desséchée*'!

From the col we enjoyed a short hour's climb up an arête of steep but firm rocks, and reached the top at 7.45 A.M. I felt that one of my ambitions had been successfully accomplished. Curiously enough there was little or no wind on the summit and we were able to enjoy a good rest and the view, which is of quite a special character; the atmosphere was perfectly clear; we saw the Bernese Oberland, the Lake of Geneva, the Jura, the Cogne mountains and a bit of the Dauphiné. The striking part of the view, however, is that of Mont Blanc itself, flanked and guarded by ranges of pinnacles and aiguilles in all directions, with the upper basin of the Argentière glacier in the foreground surrounded on all sides by almost vertical rock and ice-walls. This view and the impression it gives one is admirably described by Javelle in his account of the first ascent.

We started down at 8.25 over some very steep rocks to the commencement of Javelle's '*vire*.' Under ordinary conditions this ledge is, I believe, quite simple to find and to follow, but

we found it buried in snow and had to feel our way at every step ; I was struck with the ease with which Crettex seemed to pick it out and guide me down it. The ledge is very narrow and by no means horizontal, and wriggles along a precipitous face of rock, with a drop of from 2500 to 3000 ft. to the Neuvaz glacier below ; the rocks however are so sound and the holds so good that there is no real difficulty about it.

By 9.45 we were on the Col d'Argentière, where the view of the series of aiguilles and peaks is even more striking than from the Tour Noir itself. We had a quick descent to the glacier d'Argentière, the last half in two rapid sitting glissades, interrupted in the middle by having to negotiate a bergschrund. A hot but very grand walk of an hour down the glacier brought us to its junction with the Chardonnet glacier, where we halted for our big meal of the day. Our shortest way back from here, in point of distance, would have been to cross the Col du Chardonnet and Fenêtre de Saleinaz, but Crettex said it would take less time and be less fatiguing to go *via* the Cols du Pesson and du Tour.

Starting off again at 11.50, we had a hot and most disagreeable climb of about 2000 ft., across boulders, scree and soft snow, to the Col du Pesson, followed by an hour and a half's tramp across the Glacier du Tour, under a blazing sun, which was anything but pleasant. We passed under the whole length of the Chardonnet arête, looking very grand but forbidding, and I wondered if it would be my luck to climb it this year after waiting all last season in vain.

From the Col du Tour we crossed the plateau du Trient to the Fenêtre du Chamois ; the upper part of the couloir was ice, and we had a solid hour's step-cutting till the snow was soft enough to glissade in one long and delightful swoop right into the head of the Arpette glen. We reached Champex at 8.10 P.M., after nearly twenty hours' steady going.

A day or two afterwards E. T. Compton came to stay with me for a fortnight's sketching, and, on July 13, he and I and a friend, Cooke-Smith, went up to the Dupuis hut. The next morning Cooke-Smith and I started in good time for an attempt on the Grande Fourche ; this proved too much for us. Crossing the Col du Tour, we reached the foot of the mountain but took to the rocks too much to the left ; they were covered with ice and *verglas* and it was a case of step-cutting and clearing the ice from the rocks most of the way. The rocks got steeper and in worse condition, so we turned back and

had instead an interesting little climb from the Col des Fourches over the Petite Fourche and the Tête Blanche.

The day had been fine so far, but the sky clouded over rapidly and a high wind sprung up. Onésime Crettex and a porter were to join us at the hut that evening for an attempt on the Chardonnet, but, as the weather got worse and more threatening, we decided to go back. About half-past six we met them on the moraine below the Orny hut; they evidently had no thought of turning back, and, as both Compton and Cooke-Smith did not relish the tramp up again with the prospect of bad weather on the morrow, I returned with the guides to the Dupuis hut, hoping against hope that the luck might be with us.

We passed an uncomfortable night, very cold and windy, and the next morning we were in a thick mist with driving snow squalls, so that the Chardonnet was out of the question. It cleared up more or less about 11 o'clock and I suggested to Crettex that we might try the Aiguille Javelle which I had missed when traversing the Aiguilles Dorées four years before. He had made the first ascent of this aiguille in 1896 and was nothing loth.

We started off at 12.15 and in half an hour reached the Col Droit, whence an hour's traverse along an interesting ledge overhanging the Saleinaz glacier brought us to the foot of our climb. The crux of the climb consists of a chimney between two columns of rock, in two pitches and about 50 ft. in height. A wedged ice-axe enables one to enter the chimney—there are no holds and it is a case of back and knee work the whole way, except that, as in the Mummery crack on the Grépon, a meagre foothold enables one to regain one's breath half-way. The upper half is still more difficult, the sides are not parallel and, if you do not fall outwards, you are apt to get so wedged between the rocks that you cannot move up or down.

It was beyond my powers and I had twice to '*faire le poisson*,' as Crettex sarcastically described it! After the chimney a scramble round one or two huge cubes of granite, first poised over the Trient plateau and then hanging over the Saleinaz glacier, and we were on the top. It took us 35 minutes to get up from the foot of the chimney and 25 minutes to get down; we reached the Col Droit again at 3 p.m., and returned to Champex by the Trient glacier and the Col des Ecandies. I managed to strain my back rather badly and that, combined with a chill caught in the hut the night before, laid me up

for nearly a fortnight of fine weather with a severe attack of lumbago. I had ample opportunity to realise that, at fifty-five, such fancy climbs ought to be left to younger men!

Another spell of bad weather followed and I did not get on the mountains again till August 17, when I went up once more to the Dupuis hut by the Fenêtre du Chamois with Joseph Pellouchoud, a young guide from Champex, for two days' climbing on the Grande Fourche and the two Darreis. There were thirty-five in the hut that evening, twenty-five to thirty being the maximum number the hut will hold with comfort, and we passed in consequence a very unpleasant night.

We left next morning at 4.15, under a watery moon and a most unpromising outlook, but the day turned out fine. The Grande Fourche from the glacier du Tour is a good climb, and the rocks were in much better order than when Cooke-Smith and I attempted it. The climb consists of steep snow couloirs and rocks till a sort of shoulder is reached high up on the W. arête, from which there is a short half-hour's easy scramble to the top. The summit is curious, consisting of two huge slabs of granite perched like sloping tables; we got there at 7.30 A.M. and spent a pleasant hour enjoying the view, which is fine and extensive, the Aiguilles du Chardonnet and d'Argentière being particularly well seen. We examined with interest the Chardonnet arête on our way up; it looked in very bad order and uninviting, with heavy cornices between the gendarmes, and Pellouchoud was of opinion that it would not be possible for some time. The descent to the Saleinaz glacier, although easy, is steep and intricate; you have to search for the way down snow gullies and round rock-ribs. We reached the Saleinaz Cabane without incident at 10.30 A.M.

The Grande Fourche must offer, I should think, a considerable variety of short scrambles on both the N.W. and S.W. faces; it may also be climbed from the Fenêtre du Tour by the W. arête itself. Brook tells me he twice attempted it from the Tour side, in each case by a different route and different again from the one we took.

The halo round the moon had not been without reason, for towards evening the sky clouded over and it blew in squalls, rained, and snowed all night. After sunrise, however, it cleared up a little, and at 6.15 we were able to make a start, accompanied by a pleasant young Swiss from Fribourg who had wanted to do the Tour Noir, but the fresh snow that had fallen put that out of the question.



J. W. Wyatt, photo.

*Mt. Blanc and Aiguilles,
from the Col d'Argentière.*



J. W. Wyatt, photo.

Swan Electric Engraving Co. Ltd.

*Aiguille d'Argentière,
from the Salvaiaz Glacier.*

Crossing over the Col de Planereuse, we mounted up the Planereuse and Darrei glaciers to the middle of the horseshoe formed by the ridges of the two Darreis; from here we cut up a steep snow-slope to the N. arête of the Grand Darrei and followed it over rocks and a sharp snow arête to the top, which we reached at 8.40 A.M. By this time the sky was clouded over, snow showers were passing over the higher peaks, and all except the nearer ones were blotted out; the Tour Noir, rising boldly in front of us, was liberally besprinkled with fresh snow and looked wicked and forbidding. We had three-quarters of an hour of interesting climbing along the ridge to the top of the Petit Darrei, from which a quick descent of 1½ hours took us back to the hut. We tried a short cut through the gap between the Tita Neire and the Petit Darrei, but were confronted by a yawning bergschrund which drove us back to the Col de Planereuse, the way we had come. This traverse makes an interesting expedition and is quite short; including halts we took 2 hrs. 25 mins. from the hut to the Grand Darrei and 2 hrs. 35 mins. back over the arête of the Petit Darrei; but I think we went rather quickly.

After this the weather became more settled and the conditions better, and I grew anxious to have a try for the Chardonnet. Onésime Crettex could not come as he was too busy with his bazaar, so I engaged his brother, Emile, with whom I had traversed the Aiguille d'Orny the year before.

We left the Dupuis hut at 2.55 A.M. on August 23, a brilliant moon above and the snow crisp under our feet—everything seemed propitious. Crossing the Col du Tour and the head of the glacier, we reached the foot of the Aiguille Forbes at 4.5 A.M., where the climb proper begins.

The N. face of the Chardonnet is protected by exceedingly steep ice-slopes and hanging ice-falls, except in one place where a large rock buttress protrudes about half-way up the face; this buttress we turned on the left by threading our way through the seracs and crevasses which skirt the Aiguille Forbes. From the top of this buttress runs a steep knife-edged snow arête to the top of one of the ice-falls, from which an easy snow-slope leads up to the N.E. arête between two gendarmes of rock, a little less than a quarter of the way along the ridge from the point marked 3695 on the 1910 Barbey map.

We took 1½ hrs. to reach the arête; as we got higher the state of the snow got worse, the rocky gendarmes were plastered with snow, and we could see huge cornices hanging over both flanks of the mountain. The approach to the summit is

jealously protected and guarded by obstacles of all sorts, rock pinnacles, sharp snow arêtes and cornice-capped couloirs ; the whole ridge is very narrow, the inclination of the ice-slopes on the N. face very great, and on the S. side the face of the mountain is seamed with a succession of rock-ribs and snow gullies running sheer down to the glacier below.

Where the rock was clean or where we could traverse on to the S. side, we got on fairly well, and worked our way slowly and carefully for about an hour, till we had to traverse on the N. face ; here the snow was dangerous and inclined to slide from under us, while, ahead of us, we had a nearer view of a series of cornices that looked most uninviting. Crettex thought the state of the snow might let us get up, but doubted our being able to return with safety—it was getting worse as the sun rose higher ; accordingly we reluctantly, but I think wisely, retraced our steps. I judged we had got about one third of the way to the top.

A few days after I met Crettex in the village, who told me, with a very long face, that an Italian, with his cousin Jules Crettex, and a porter had just been up ; I saw Jules Crettex who said he had had to cut away the tops of the cornices in order to pass underneath them, that it was very hard work, and that they would never have got up had they not been a party of three !

I had promised my wife to take her up the Aiguille du Tour, so on August 25 I went up with her and Emile Crettex once again to the Dupuis hut ; having been up the N. Aiguille three days before on our return from our abortive attempt on the Chardonnet, I went up the S. Aiguille while she went with Crettex up the higher point. We returned to Champex through the Fenêtre de Saleinaz, the Saleinaz glacier and Praz de Fort.

The evening of September 3 saw me again at the Dupuis hut with Emile Crettex. I won't say we had made up our minds to reach the top of the Chardonnet this time or perish in the attempt, but our feelings were somewhat akin to that ! The next morning was perfect and absolutely still ; we left at 3.45 A.M., followed the same route as before and struck the arête at 6.45.

This time we were successful and reached the summit at 9.25, after what the French would call *une traversée aérienne*. We passed under the cornices that Jules Crettex had hacked away—a truly Herculean task ! The condition of the snow was much better than before ; we were able to follow the

arête and traverse the various gendarmes most of the way, at one time looking down the stupendous ice-slopes of the N. face, at another clinging on to rocky ledges with our legs dangling over the Chardonnet glacier. The most difficult part of the climb was the crossing of the snow gullies and arêtes separating the different obstacles that the mountain places in one's way. The traverse of the big snowy gendarme, just below the summit and shown well in the accompanying photograph, was the last difficulty we had to contend with; from this to the top was comparatively easy. As from all the peaks in this district, the view is both grand and extensive; the Chamonix valley lies at one's feet with the village of Argentière à pic below.

We left the top reluctantly at 10 o'clock and took 2½ hrs. to traverse back along the arête. We avoided the traverse of the big white gendarme by turning it on the S. side, crawling on all fours through a curious cleft in the rocks, half filled with ice and known locally as the *vire à quatre pattes*, and then by a hand traverse along a narrow ledge to the arête again. The condition of the snow was altering for the worse with the heat of the sun and we had some awkward work crossing the snow couloirs, only one of us moving at a time. I have a vivid recollection of one of these where I had to stoop under an overhanging cornice, the snow soft and inclined to slip away; I remember looking down and wondering, if the snow did go, where I should fall to and what I should strike before the rope got taut—I wished we had been a party of three instead of two!

We got to the hut again at 2.50 P.M., had an hour's rest and refreshment, and then went down to the Cabane d'Orny where my wife was waiting for me for a traverse of the Portalet the next day. We had got in the Chardonnet only just in time, for that evening it blew and rained all night and delayed our start the following morning till 9.30 A.M.

The face of the Portalet opposite the Orny hut, another of Javelle's first ascents, is worth doing; although steep it is not difficult. We followed Javelle's route, the best way up. Crossing the bergschrund at the foot of the slope, the climb consists of a steep rib of loose rocks and snow and joins the main arête just to the west of a pinnacle of rock known as *La Chandelle du Portalet*. We reached the top at 12.45, unfortunately enveloped in a mist which only afforded us glimpses of what must be a fine view. We came down the other side through driving snow and wind and tried to cross

the Col des Ravines Rousses ; we got down a short distance but the rocks were loose and rotten, covered with ice, and it was very cold, so we came up again and went round by the Col des Plines, the ordinary way down.

This ended my climbs for last season ; pleasant days and delightful experiences, the memory of which will always be refreshing to look back upon.

THE VOLCANOES BROMO AND KRAKATAU : A BRIEF ACCOUNT
OF A VISIT TO THEM.

BY THE LATE DR. TEMPEST ANDERSON.

FROM Tosari, near Surabaya, in Eastern Java, Dr. Tempest Anderson, who was accompanied by Mr. Leslie Taylor, of Clare College, Cambridge, wrote as follows :

'I have visited the (at present) most active parts of Goentoer (Kawah Kamodjan), Papandajan and Galoengoen (Telega Bodas), and am waiting to go to Penandjaan and Bromo from here on an early day. The mode of procedure in all these has been the same : start two or three hours before daybreak ; ride eight or ten miles in a conveyance of which the English farmer's tax-cart is a roomy, comfortable, and generally improved edition ; meet guides and horses (previously ordered) about daybreak, then ride over mountain paths, often through magnificent tropical jungle, to the foot of the final cone, or sometimes to the crater itself. Except in the case of Papandajan, where the fumes keep down the vegetation, the inside as well as the outside of the craters are covered with impenetrable jungle, which would require a large force of men with hatchets to make a path. For this reason if for no other we did not get to the highest crater of Galoengoen, but we saw a very beautiful crater lake (Telega Bodas), with many bubblings of gas, and the water all milky with sulphur. Dr. Brouwer, of the Geological Survey, collected some specimens there for us, but generally everything is covered with vegetation growing in red clay (weathered tuff), and very occasionally weathered and decomposed lava. Goentoer has a large crater with several craterlets in the bottom, mostly with mud puffs or

hot springs, some large enough to form lakelets, but all smothered in jungle and difficult of examination, or even some of access, in consequence.

'I had hoped great things from Papandajan, having examined it with the binoculars from a distance, as there is an extensive solfatara with active blowholes and deposit of sulphur going on. The guide, however, who knew no civilized language, got a good start of me and before I could stop him poked a pole into the holes to make them roar and thereby spoiled the new formation of sulphur which I hoped to have observed. The clouds generally came up (or down is it?) about 9 or 10 and drove us down.

'I went on April 23 (Wednesday) to Bromo, which proved the most interesting excursion I have yet made.

'We left the hotel about 3.30 by the light of a moon only two days or so past full, and consequently at its best for the purpose. I had a horse (a very bad one, by the way, which tried to kick me repeatedly while mounting), and Taylor walked. This place is on the slopes of the massif, of which Bromo, Smeroe, and others are the chief summits, and the whole, composed of tuff, weathered in most places into red clay, consists of a series of ridges and deep valleys which remind me strongly of the Soufrière of St. Vincent and Montagne Pelée. The original jungle has unfortunately been cleared, and where replanting has been done the plantations lack the beauty and diversity of the primeval forests. The path wound upwards along the slopes, occasionally crossing a ridge and descending a little till we got to the edge of an old crater like a magnified Somma, or the Canadas of Teneriffe, with the active Bromo and several dormant cones on its floor. A very steep descent took us into the "Sandsea" or plain in the bottom; crossing and winding round the foot of Batok we came to the foot of Bromo, the abode of the god still worshipped by the Tenggerese natives. It is quite devoid of vegetation and strongly reminds me of the Soufrière, and has a crater of which I tried to secure photographs, which, if they come out, might almost pass for some of those I got in 1907, only, instead of the crater lake, there is a very active pit in the bottom of the funnel, out of which enormous volumes of steam etc. escape with a continuous roar and occasional loud explosions, some of which are audible here.' *

Dr. Anderson and Mr. Taylor started from Tanjong-Priok,

* i.e. at Tosari.

the port of Batavia, with Dr. Koenigsberger, of Buitenzorg, and Dr. Brouwer, in the steamer *Brak* on May 6 at 10 A.M. They spent the whole day amongst beautiful islands, all covered with vegetation to the water's edge. They enjoyed retrospective views of Salak and Gede, the latter especially striking at and before starting. They arrived at the end of Java before dusk and anchored in a safe bay.

At daylight on May 7 they steamed for the opening between Krakatau and Lang Island, went entirely round Krakatau—the light improving momentarily—and anchored for breakfast-time in front of what Dr. Anderson calls the main section near Schwarte Hook. Dykes were very striking, and the view improved as the day went on. They landed and Dr. Anderson walked to Schwarte Hook with Dr. Koenigsberger. They returned for tiffin, and after tea landed again. They started after dark and arrived at Tanjong-Priok, the port of Batavia, on May 8, about 8 A.M.

Dr. Anderson observed on Krakatau :

'The outer face of the island is evidently thickly covered with ejecta showing characteristic umbrella denudation, completely covered now with returned vegetation.

'The face to the Eastern strait is precipitous—too steep for much vegetation. The main face to the explosion crater fully bears out its reputation. Most of the centre is still bare and shows dykes magnificently. To the west of this is a fine scree reminding one of the Sciara of Stromboli (but not fed by a crater).'

The following account of the terrible eruption of Krakatau in August 1883* is taken, by the kind permission of the author, from Mr. W. Basil Worsfold's book '*A Visit to Java*' (London, 1893), and is an actual narrative of the personal experience of the second engineer on the steamship *Governor-General Lowden* given by him to Mr. Worsfold :

'We were anchored off Telokbetong, in Sumatra, when the chief officer and myself observed a dark line out at sea which bore the appearance of a tidal wave. While we were remarking this, the captain (who was just then taking his bath) rushed on to the bridge, and telegraphed to the engine-room to steam slow ahead up to the anchors. I was engaged in carrying out this order when the wave came up to the ship. First she dropped ; then heaved up and down for five minutes. There

* See also for a full description '*The Eruption of Krakatoa*' (Report of Krakatoa Committee of the Royal Society, 1888).

were three waves. When I came on deck again the long pier, which had been crowded with Europeans who had come out of the town (they had experienced a shock of earthquake during the night)—this pier, the houses and offices, had disappeared; in fact the whole town was gone. A Government steamboat lying at anchor (with steam up) in the bay was landed high on the tops of the fallen trees in company with some native boats. That was the first intimation we received that Krakatoa was in eruption, and from that time, eight o'clock, onwards through the day the rumbling thunders never ceased, while the darkness increased to a thick impenetrable covering of smoky vapour. Shortly after this we got under way, and proceeded until the darkness made it impossible to go on further. It was while we were thus enveloped in darkness that the stones and cinders discharged by the mountain began to fall upon the ship. In a short time the canvas awning and the deck were covered with ashes and stones, to the depth of two feet, and all our available men were employed in removing the fallen mass, which would otherwise have sunk the ship. We had a large number of natives on board, and a hundred and sixty European soldiers. The latter worked with the energy of despair at their task of clearing the deck, in spite of the twofold danger of being burnt and stunned by the hot falling stones. While we were engaged in this struggle, and enveloped in the sheer blackness of a veritable hell, a new and terrible danger came upon us. This was the approach of the tidal wave caused by the final eruption, which occurred about 12.30 to 1 P.M. The wave reached us at 2 P.M. or thereabouts, and made the ship tumble like a see-saw. Sometimes she was almost straight on end, at other times she heaved over almost on her beam-ends. We were anchored and steaming up to our anchors as before, and as before we managed to escape destruction. All the passengers and the crew gave themselves up for lost, but there was no panic, and the captain handled the ship splendidly throughout. He received a gold medal from the Government in recognition of his indomitable courage in saving the ship and passengers. Well, you can fancy what it was like when I tell you that the captain was lashed with three ropes alongside the engine-room companion, while I was lashed down below to work the engines. The men were dashed from one side of the engine-room to the other.

When we reached Angier we found no trace—neither a splinter of wood nor a fraction of stone—of the buildings of

that once flourishing seaport. At Batavia the water was so dense from the floating lava * (the deposit reached fifteen feet in depth) that we made our way to the shore on planks. Telokbetong was closed for three or four months, and on our return to Achin we could not land our passengers. At Batavia the tidal wave had penetrated almost to the town, where, in the lower portion, the houses were flooded by the Kali Bezar (great river). Business was suspended except by a few determined spirits who worked on by gaslight, so great was the alarm at the darkness and thunderous noises.

THE POINTE DU POUSSET AND THE BECCA DENTAVU.

By THE EDITOR.

THE POINTE DU POUSSET.

ON August 11, 1913, we left Cogné at 8.15 A.M. I rode a mule, and Benjamin Pession carried a lantern to show the way. The guide Pierre Gérard, of Cogné, and the owner of the mule accompanied us. The morning was cold, not to say very cold, and the sky was bright with innumerable stars. By and by a clear cold light gave signs that the sun would be with us soon. He came in a fleckless sky, but soon afterwards clouds became visible to the east. Elsewhere nothing but fleeting scarves of vapour and these far apart appeared, and they did nothing to dim the morning's brightness. A cold wind blew at first from Mont Blanc, but later from the east. When I dismounted at 6.5 at the King's Camp at Lauzon the air was still almost arctic.

I made inquiries from Gérard as to whether the King was satisfied with his sport this year, and he replied that the King had never been so pleased before. I fancy the number of bouquetin killed was unprecedented. The beaters received double pay.

The mule dismissed, we went some way along the Lauzon track and then, still on a King's hunting path, turned up towards the Colle della Nera.

The last part of our journey to the colle was up steep rock. I noticed on our way *Campanula Cenisia*, *Eritrichium nanum*,

* i.e. pumice.

Androsace glacialis, and low down many pansies. But this did not appear to be a good year for flowers. It was too dry.

After breakfast we went down the whole length of the Trajo glacier as far as the seracs. The scene was of wonderful beauty. The slightly sloping surface was pure white. New snow had hidden the stones and rubbish which had fallen from the cliffs except just under the Grivola itself, which, owing to the amount of snow on it, was in a by no means safe condition. The snow had melted off the Grivoletta. Pierre Gérard remarked that he had climbed the Grivoletta twice, to which I replied 'And I three times.'

Our walk was delightful, though the still cold wind at times swept up and whirled abroad the loose snow. For a long distance we encountered no crevasses. Then we came to two or three of vast proportions. On one I gazed with awe and admiration. It had more delicate tracery and more elaborate arches than anything I had met with before. A cold steely-blue light added to its impressiveness. Later we got to the portion where the enclosing sides of the glacier narrowed and pushed up the central ice in almost regular ridges. These, as the enclosed space grew still narrower, became more troublesome to cross, and presently we came to a wild chaos of chasms, piers, and daringly conceived bridges. One jump I shall not forget: it was as much as I could manage with my best efforts. The longer I looked at it the less I felt I should like it, so I sprang across at once. We tried for a way off the ice just above the seracs, but could not find one. There was no snow at the side of the icefall and the rocks were nearly sheer, so we had to retrace our steps for some distance and mount the rotten slopes and slabs that led up to the ridge which runs from the so-called Col du Pousset to the Pointe du Pousset. It was with a rebellious heart that I consented to this course, for if there is one thing in climbing which I detest more than another, it is to ascend a considerable height after one has been descending for hours. [The descent from the Colle della Nera to the seracs took us two hours and three quarters.]

We must have gone up considerably over a thousand feet, and when we reached the ridge—I had one considerable rest on the way—and had had something to eat I declared for a visit to the Pointe du Pousset. There we enjoyed the usual fine view to perfection, and, in my case with equanimity recovered, descended to Cogne—having made a new ascent of the Pousset, starting from the King's Camp at Lauzon

—a portentously long route which will probably never be followed again.

My object in making this expedition had been to find a way down the Trajo icefall. Had that been feasible it would have been the prelude to a new route over the Pointe du Pousset. As thus : descend to Epinel, mount the beautiful Trajo glen, get up the Trajo icefall, and so climb the Pousset, by (practically) the route we took, and descend to Cogne by the usual way. I think it may be possible to find a way on to the Trajo glacier between the great rock-mass * which bounds the true left of the icefall, and which has a most imposing appearance from Epinel, and the Col de la Grivoletta, and so gain the Trajo glacier above the icefall. This should be an interesting expedition.

THE BECCA DENTAVU.

All mountaineers have a store of memories of pleasant hours spent on little peaks, hours when with Apollo they unbent their bows. Many such hours come back to me, but amongst them all there is no memory more delectable than that of the day I spent on the Becca Dentavu. In 1910 Benjamin Pession and I had traversed the long ridge which runs from the Pointe de Trajo or Punta Rom to the Punta Lavincusse and climbed every big tower in it, but we had left the Becca Dentavu untouched. Its merits as a view-point were obviously considerable : four hours from Cogne would probably take us to the top : so on August 15 Benjamin and I devoted a beautiful day to an investigation of its merits. It was just after nine when we turned off the road below Epinel and began the ascent of the grassy foot of the mountain above the right bank of the Grand Eyvia. The autumn crocuses were fine above a chalet near which a woman was letting loose several tiny rivulets over the steep meadow-slope:

A few friendly trees here and there shaded our sunny path, where martagon lilies, the Alpine clematis, and many a rose bush had been in flower. Before we entered the forest we had a picturesque view of the annual procession (it was August 15), moving slowly along the road at Cogne. Just as we reached the first trees Benjamin turned round and said 'J'ai vu les loups de Jantet'—an old joke for squirrels.

About 10.30 we reached a sort of platform, now grass-grown, the site in old time, said Benjamin, of charcoal-burning.

* This shows bravely in the accompanying illustration.

When we had cleared the wood we saw two eagles, the reason for whose presence we discovered later on. We reached our summit at close upon half-past twelve.

I have eulogized in the past many Cogne view-points and honestly believed in the praise bestowed upon them, but few of them surpass the Becca Dentavu. The Pousset has its historic claim; the Aiguillette, to me a modest novelty, gave comprehensive details of the Cogne basin. The Fenilia has a somewhat supercilious appearance, as though he looked down on everything under 10,000 feet. Gimillian has the democratic vogue (if that means that it is visited by everybody). The Tour d'Arpisson offers a choice of seven heads, but the Becca Dentavu, whilst it rakes the valley and all the villages, has the faultless near view of the Grivola. Doth not Grandeur and Grivola begin both with a letter? Attendant on the 'Ardua bella' stand on either hand the Punta Crevasse and the Grivoletta—and there I see them still. This is the great feature of the view, but over the end of the Val d'Aoste is Mont Blanc, over minor ridges there are the Vêlan and the Grand Combin. Near by there is the Trajo glacier and its icefall, which had foiled us only four days previously. Deep in the hollow between the moraines of the Trajo and the Grivoletta glaciers there is a large flock of sheep and some cattle.

We spent two delightful hours on the summit, and with our lunch discussed many things, the corn, the potatoes, the vintage, and priests and their profits. The sun shone brightly, and occasionally a pleasant breath of wind blew in our faces, and no sounds reached us save the voices of the torrents in the Trajo glen.

I ought to have said that close to the top there were many blossoms of *Aster alpinus*, and a little shrubbery of dwarf willows in a wet place. Twenty-five feet below the summit there was a tuft of edelweiss on the Trajo side; then saxifrages and *Silene acaulis*. We decided to go down into the Trajo glen, which was not such an absolutely easy matter as our ascent had been. Some way down a grievous stench annoyed the air and prepared us for the sight of a half-devoured little bouquetin, which had fallen, so Benjamin thought, down the steep cliff. Incidentally the poor little carcass furnished the reason for the presence of the two eagles we had previously seen.

When we got to the Trajo chalets we decided, instead of descending to Epinel, to follow the path through the woods to Cretaz. We found two kinds of pyrola and many hepaticas.

By and by we came to a place where the path went rather steeply uphill, though there seemed to be an inferior track that kept at a level. We followed the latter and soon had cause to repent our choice, for ere long it brought us thick bushes, big rocks heavily covered with loose moss, vile slabs, and torrent-beds of a fine pawky humour. Abuse was wasted upon them. We traversed some fine spaces of pinewood, and then passing through rough pasture finally reached Cretaz. No little peak ever gave me a day of more varied interest. And no summer, I may add, had ever seen more English visitors—all mountain-lovers—at the Hôtel Grivola: it was always a pleasure to return thither, for ‘society,’ says the text, ‘is the pleasure of life.’

NOTE ON THE ILLUSTRATION.

The mountain to the extreme left of the picture is the Pointe du Pousset, then comes the icefall of the Trajo Glacier; the Grivola stands up in the centre, the Grivoletta being invisible against the mass of the Grivola. The ridge running from the Grivoletta to the Punta Crevasse can be seen as well as the dark Punta Crevasse itself. The Col Trajo is hidden behind the mass of the Pointe de Trajo or Punta Rom. The Becca Dentavu is the last and lowest point in the ridge (of the Punta Rom) on the extreme right of the illustration. My best thanks are due to Mr. Leech for permission to reproduce his beautiful photograph.

G. Y.

IN MEMORIAM.

FREDERICK MORSHEAD.

THERE passed away on January 28, in his quiet Devonshire home, a member of the Club famous in his day, not a very remote one, for speed and skill as a climber, and even better known for the brightness which his ringing laugh and cheerful presence brought into any gathering, and for a touch of chivalry, hard to define, but unmistakable, in all the relations of life. No one seems to recall memories of Frederick Morshead without an enthusiasm which makes it difficult, in writing of him, to avoid superlatives ill-assorted with a character of rare simplicity and directness.

He was born in 1836, at his father's rectory of Kelly, on the borders of Devon and Cornwall, and was thus the junior by two years of Charles Edward Mathews, and the senior by two years of

Horace Walker, to name two of his early Alpine associates whose friendship he enjoyed till nearly the end. His mother was a Trelawny, a lineal descendant of the sturdy Bishop and Baronet of that name. In 1847 he went to Winchester as a scholar. He had a brilliant school career, winning the chief classical honour at fifteen, and the chief mathematical honour in the following year. He was a renowned football player, and reached the responsible position of 'Prefect of Hall.' Stories are still extant, and have been told in the fitting place, which show that he possessed, in very early life, much of the resourcefulness, vigour, and kindly humour by aid of which he solved many difficult situations later on.

At sixteen he was called up to New College, then a small and close body, as a Probationer-Fellow. In his Oxford time he took things, from an academical point of view, rather easily. He used to regret, quite late in life, that it had been so; but, as he would say, 'You see one was only sixteen,' and he might have added more as to the general conditions of the time. However that may be, the wild life of the Western counties, and scrambles on the fine cliffs of the Cornish coast, the haunt, as he remembered them, of seals and waterfowl, were bracing muscles and nerves, and confirming his inborn love of mountains and of all rough country. Meanwhile he was observing men and characters, and storing in his memory wise and racy sayings of the generation then dying out. He had afterwards a fund of West Country stories, including some from the famous 'Mr. Hicks of Bodmin,' not to be found in the best known repertoires of that worthy's wisdom, which he would bring out with great enjoyment, but only in casual conversation, and with a terse gravity giving them fresh point. His mind was far too alert to go to seed in any sense, and the proof is that, when he took up the profession of a teacher, he made an extraordinarily good one. It is very striking to find how universal is the testimony to his gifts of teaching, quite apart from those of character and practical ability; and it comes unasked, on the mere mention of his name, from those who have themselves reached real distinction in scholarship and literature. He would follow, with the keen sympathy of a well-trained mind, though always with a singular modesty, the writings or doings of old pupils and friends. And he had an open mind for new ideas, such, for instance as might be reported to him as stirring in the intellectual society of the 'Town' of Birmingham, not affirming or denying, but caring to understand them.

He took his B.A. Degree in 1857, and was for some time a Master at Cowbridge School in Glamorganshire, under Mr. Holt Beaver, and at Glenalmond. In 1863 he came back to New College for a year, as a tutor, no doubt at the instance of his lifelong friend, the Rev. E. C. Wickham, afterwards Dean of Lincoln. The College was then at an early stage of its emergence out of a society of some twenty residents into one of more than two hundred. The value of Morshead's contribution to its nascent life may be readily

imagined. Among other things, he had a large share in starting an Eight, in which he rowed a strong seven to the stroke of W. F. Short (who was at that time a keen climber and remained for thirty years a member of the Club). In 1864 he became Head Master of the small foundation-school of Beaumaris, which, in his four years there, he raised to high efficiency, and won the confidence of the neighbouring district. There were difficulties, owing to the conditions of the foundation and a cramped site, which he faced with courage and patience, and an infinite enjoyment of their humorous side. It was to Beaumaris that he brought home, in 1865, after a festal progress through the Alps, where his name was by this time one to conjure with, the lady who survives him, herself a member of an old Devonshire family. From the first the doors of that sunny Beaumaris home were thrown open to old friends and to many in need of a shelter, and its hospitality was enjoyed by many of the best known and most delightful Alpine climbers of that early age. Beaumaris, though not the school-house, commands a view of wonderful beauty across the Menai Straits, the mountains of Carnarvonshire sweeping away from Moel Eilio to Yr Eifl, and back to Penmaenmawr. The Head Master was not often free to explore their recesses, all well known to him, but parties would be despatched to find Twll-du, or Tryfan, or points of the Carnedd. Thus I remember starting, one fine June morning, with Owen Morshead, the next younger brother, the breeziest and most genial of companions, to strike and traverse the ridge of Crib Goch, then new to both of us. Owen Morshead, who was a clerk in the War Office, died in 1893 greatly beloved and regretted.

In 1868 Dr. George Ridding, who was preparing to reconstruct the non-foundation part of Winchester School, and who had a keen eye for a man, invited Frederick Morshead to help him by undertaking a new Boarding-House. After a time in temporary quarters the House was opened which for thirty-seven years he ruled and inspired, and which still preserves the impress of the vigilance, generosity, and kindly trustfulness which were parts of himself. In larger matters, when knowledge of men and of the outside world was needed, if a gale of unpopularity had to be weathered, or a great ceremonial to be organised, it was to him that appeal was made. Thus he carried through, with perfect tact, the Anniversary Celebrations of 1887 and 1893, which brought unwonted personages and dignitaries upon the scene; and his help was always in request for the annual 'Domum Ball.' These tasks, often very laborious, were done with such a natural ease that he never appeared to be the necessary man, and there was an assurance of power in reserve. If he ruled a city well, a province might be safe in his hands.

As the College was largely interested in local administration, it was desirable that it should have a direct voice in the counsels of

the city, and Morshead was the obvious representative. He became a Councillor in 1878, and this was the beginning of a happy association, which lasted till 1905, and was then made permanent by his receiving the honorary freedom of the city. He twice held the office of Mayor, an onerous addition to a schoolmaster's duties; but the combination was satisfactory on both sides, and the precedent has been followed in at least two instances at Winchester. He threw himself into educational and many other questions, notably into sanitation, a pressing matter which he followed out with great thoroughness, visiting towns in England and Wales, and mastering systems in use on the Continent. In 1893 he became a County Magistrate.

In 1905 he retired from active life to the small property near Tavistock, in his native part of Devon, which he had for some years occupied as a holiday home. He was full of activity and county interests; and, with members of his family, would cover wonderful distances over the granite roads of Cornwall on the bicycle, which had become to him, to some extent, what a horse had been in the earlier half of his life. The first warning of trouble came in 1906, from an accident with a pony which he was breaking for a grandchild. He received a kick on the arm, and the injury did not at once right itself. Though he recovered the use of the limb, and was able to enjoy the bicycle again, he found himself content to go quietly in all senses for the years which followed; much cheered by all Alpine news and by going back over old days, and interchanging happy greetings with his oldest comrade and guide, who lives on in his honoured and patriarchal age at Meiringen. He was not in any special sense ill at the beginning of the year, but a chance cold took a dangerous direction, and the active life passed away most peacefully. He was laid to rest in the Winchester Cemetery, with every mark of respect from City and College which it was allowed them to show, his very old friend and colleague, Archdeacon Fearon, who has told the story of his life elsewhere, performing the whole service.

It will be seen that at no period of his life, after he finally left Oxford, was London an accessible place to him; for a night away from Winchester, except in holidays, was a very rare occurrence. Thus he was not often seen at meetings of the Alpine Club, though he served on the Committee in 1872, and attended, with effort to himself, but also with keen enjoyment, the Jubilee proceedings of 1907. On the other hand, he always, even after he ceased to make elaborate expeditions, kept a generous part of his holiday-time for the Alps; he loved the social cheerfulness and simple luxuries of the familiar centres, where he met old friends, and made acquaintance with the younger climbers bringing in new aspirations and new methods. The *ALPINE JOURNAL* had been to a large extent projected by him, in concert with Mr. George, and he was a regular and observant reader.

F. Morshead was elected into the Alpine Club in December 1861,

having been proposed by F. F. Tuckett and seconded by F. E. Blackstone, on the Col de Sagerou, Col du Géant, and Monte Rosa. These were the results of his first season, for which, as for the following, he kept a journal, which includes scrupulous accounts. Later on he preferred a simple and more accurate method of Alpine finance requiring no arithmetic. He notices an excess of snow on the Sagerou which caused difficulty; otherwise he seems to have taken quite naturally to snow and ice. There are some pungent remarks on certain guides and innkeepers, and some interesting notes which show the country gentleman on his travels. Thus he discusses the use of horses, rather than mules, in the Vispthal, the general absence of the Scotch fir, and the humours of the cows on the upper pastures. He even notices the readings of a thermometer buried on Monte Rosa, which he would afterwards have left to Mr. Tuckett.

For so enterprising a climber, his name will not be connected with many of the greater new expeditions; and for accounts of his climbs, beyond brief notes sent to this JOURNAL, we must look to other narrators. Though he thoroughly enjoyed the pleasures of marking down and carrying out a new ascent or passage, the interest of a mountain lay for him in itself; it even gained interest, for an observant climber, by the fact of having been climbed already, since it had begun to acquire a history. There was hardly a great peak which he had not mounted several times, and was not ready to mount again for the pleasure of having a friend's company upon it, or of watching the methods of good guides in turning known difficulties. Thus he was on the top of the Matterhorn at least five times, besides a very arduous assault upon the Italian side recorded by Mr. C. E. Mathews ('A.J.' v. 259). Though the Graians and Tyrol came into his range, far the greatest part of his climbing was done in Switzerland and the near neighbourhood, and it was in vain, for instance, that A. W. Moore tempted him with the Meije. He liked to be within a direct railway journey of his home, and he loved the cheerful atmosphere of the centres.

The passage of the Biesjoch in 1864 was not, strictly speaking, a new expedition, but it was one of much interest, the more so as being fully described in A. W. Moore's 'Journal.' The fine ascent of the Lyskamm from Gressoney in 1867 was shared by C. E. Mathews, his companion afterwards in many years ('A.J.' iv. 65). The series of climbs with Dr. Hornby and Mr. Philpott in 1866, which added three new passes from the Oberland to the Valais (the Ebnefluh, Schmadrjoch, and Agassiz Joch), is a memorable one, and its story has been told by the late Provost ('A.J.' ii. 410), and by Mr. Philpott (xxv. 48). It derives fresh interest from the recent (1911) experiences of Dr. Williamson on the wall which backs the Lauterbrunnen valley. Mr. Philpott lets drop a sentence with a climax: 'I never knew Hornby slip; Almer hardly could; Mörshed, I fancy, with only just sufficient support, would stand in the midst



[Svan Electric Engraving Co., Ltd.]

F. MORSHEAD.

(From a photograph taken about 1877.)

of infinite space and feel quite comfortable.' This is hardly a figure of speech, and recalls real instances of his wonderful sureness of head and foot, not on high mountains only.

He was, beyond doubt, very fast on a mountain. This comes out in the narratives of those who have shared his climbs and recorded them, in the known opinion of such mountaineers as Sir L. Stephen, and in the common talk of guides. He cared little for making or breaking records; if he was human enough to care, he did not show it. He moved fast because it was easier to him and more natural than to move slow. His pace on a road was quick (he walked from Zermatt to Visp, led by Hornby, in four hours and eight minutes); and his well-balanced movement, with no step to be retracted or corrected, made rough ground almost as easy as a road. A passage of the Rothhorn in 1873 is one of several recorded examples: 'Mr. F. Morshead, with Melchior Anderegg and Christian Lauener, started from the Zinal hut on August 9, and crossed over the top of the Rothhorn to Zermatt in the astonishingly short space of nine hours, halts included' ('A.J.' vi. 365). The combination suggests something like that idea of 'unimpeded activity' in which we have been taught that true pleasure consists. Morshead seldom allowed himself the luxury of two first-rate guides all to himself. But the Rothhorn, on either approach, was a favourite mountain; and he held that a peak was never so truly a peak as when it was also a pass. The whole expedition was a rare outburst of self-indulgence.

One or two minor discoveries gave him great satisfaction. Such were the 'Matterjoch' ('A.J. i. 135) and the col between the Ober and Unter Gabelhörner, described in an attractive note ('A.J.' viii. 339) as made by himself and Melchior Anderegg, the object being 'to provide a new, interesting, single-day passage from Zermatt.' He liked to prove that some ascent, rated at two days, could be better done in one, by starting a few hours earlier from a good bed. Thus, with Christian Almer, he found a direct route up the Wetterhorn from Grindelwald, though by no means insensible to the singular beauty of the Glectstein. This was the moral which he drew, in a letter to *The Times* of July 28, 1864, from his famous solitary ascent of Mont Blanc, which was not undertaken for any such moral end, but was made quite impromptu, under some provocation from circumstances and from the Bureau of Chamonix. The facts, as gathered from his letter, from an article in the *Cornhill Magazine* of that year (since acknowledged by a writer of the highest Alpine authority), from articles in the *Abeille de Chamonix*, and from the recollections of friends then in Chamonix, are worth recapitulating. Returning from the Jardin on July 20, he heard that a friend had arrived, and had started with a party for the Grands Mulets and Mont Blanc. This was a younger man, to some extent under Morshead's charge, who had been with him and Moore in the passage of the Biesjoch, but had remained at

Zermatt with Peter Perrn, a well-known Zermatt guide. Morshead made his arrangements, found a porter willing to accompany him, and started half an hour after midnight in pursuit. The porter turned back soon after the Grands Mulets. Morshead continued the ascent, met his party descending at about twenty minutes from the top, and overtook them again on the Grand Plateau. He did not tie on to them at once, but went through some form of doing so later on. The *Cornhill* writer preserves some interesting details, especially the use by Peter Perrn of a strange epithet ('Ein grieslicher Herr') explained by him as being a *patois* word specially devised by Christian Almer to sum up the current guide impressions of this unconventional Englishman. The 'solitary adventurer' is described as consuming his champagne and *poulet* on the summit, and even this has its significance. In the letter to *The Times* Morshead mentions, with an apology for the amount, his outlay on provisions, 27 fr. for two men, possibly for two days. Now he would at any time have been well content to take simple guide's fare—with judicious omissions. But he was also much alive to all the refinements of life, in his home and abroad, and he would never allow a good expedition to be spoiled by minor economies. Thus, if the vintage of 'Eastern France'—or of the Canton Vaud—would show respect for Mont Blanc, or add to the gaiety of the friends whom he expected to meet on the top, it would not be wanting. And the 'remains'—doubtless an euphemism—were in fact administered to a somewhat fagged-out comrade on the Grand Plateau.

It should be noticed that Morshead was using the steps made by a guide whose competence he knew, that there were two parties on the mountain that day, and that he himself was no stranger to it. In the preceding year, 1863, he had attempted it in bad weather from the Aiguille du Gôûter, as is fully described in an unpublished journal of A. W. Moore's, which Morshead wrote out, adding the sequel himself. The party at last reached the Grands Mulets, whence Moore returned to England; but Morshead stayed on, and, after another failure due to weather, reached the top by the ordinary route. He was an exceptionally careful climber afterwards, never pressing guides, and not going into the highest regions without them. When pressed on the subject of this 'pas seul,' he would tell a story of a Scotchman who had reached the top of Mont Blanc with only the help of an umbrella. This traveller was reticent as to details, only repeating that he had inserted the point into all available cracks, 'but,' he would always conclude, 'it was tick or tie!'

After he ceased to take part in climbs requiring much time and elaboration, he often visited Switzerland with family or friends, enjoying 'scrambles' on moderate heights, with an occasional incursion into the upper world. In 1899 he was at Chamonix for a few September days, in which he keenly enjoyed explorations of the Aiguilles Rouges and then an ascent of the Tacul, for which an



[Stean Electric Engraving Co., Ltd.]

Ever Gr
F. M. M. M. M.

elderly Chamonix guide was picked up, with agreeable conversation and reminiscences, and there was a rich find of crystals. That afternoon came a great thunderstorm ; and when it was clear that the weather was broken for good, Morshead, from whose nostrils the reek of his own homestead was never far away, took the first available train for Paris and Devon. This was not his last visit to the Alps, but he did not perhaps do even so much 'scrambling' again.

He was an enthusiast about Welsh mountains ; other parts of the British Isles did not come within his reach, at any rate after very early days. Tryfan he would speak of with special respect as occupying the smallest base, for its height, of all European mountains, except the Matterhorn. Penygwryd he remembered just as it is described in 'Two Years Ago,' before the reconstruction of 1859. Mr. C. E. Mathews, in his delightful monograph, has given the story of the winter reunions there. Morshead was fond of telling how a learned member of his own profession, from Rugby (who happily is living and has lately written a charming account of the amusements of his youth), detected the pedagogue under the garb of the mountaineer, and greeted the assembled 'Rabbits' with 'Ha ! a Panegyris I see.' He knew the Cader Idris range well. Tyn y Cornel, on Talyllyn, which preserves all its simplicity, was a favourite haunt. As a guest of Mr. C. E. Mathews in his hospitable cottage beyond the Dovey, he often renewed his memories of Llyn y Cae and the Cader cliffs. He welcomed the formation of the 'Climbers' Club,' of which he was for some years a member, and felt that it has a future.

It can have fallen to the lot of few men to make rough places smooth for more of their fellows, or to throw more sunshine upon the common tracks of life. We may leave it to posterity to find his exact place as a climber. The true and modest words over Christian Almer's grave, 'Der besten Führer einer,' go to the root of the matter for guides and other mountaineers also. To have climbed with the best of his day on equal terms, to have done something to advance the art, and to leave its confraternity united and ambitious, able to look forward as well as back, would have satisfied the Alpine ambitions of Frederick Morshead.

Mr. Morshead leaves two surviving sons and four daughters. His eldest son holds a high place in the Civil Service of Bengal, and his eldest grandson, now a cadet at Woolwich, was among the soundest cricketers of his school eleven last season.

The photograph, by Salmon, of Winchester, shows the ripe school-master and ex-mayor, and gives some hint of the capacity for humour of the original face. A statuette from the hand of Melchior Anderegg, which has been generously presented to the Club by Mrs. Morshead, represents the mountaineer of the seventies. His figure, at a still earlier date, will be recognised in the 'Club Room of Zermatt.'

A. O. P.

SIR F. F. CULLINAN, K.C.B.

ON December 27 last, Sir Frederick FitzJames Cullinan, K.C.B., an old member of the Alpine Club, died somewhat suddenly and unexpectedly.

Cullinan came from Clare, in the West of Ireland, where his family is well known.

He was born in 1845, and in 1864 entered the office of the Chief Secretary for Ireland in Dublin Castle.

In 1878 he was appointed Clerk in charge of the Irish Office in London, a branch of the Chief Secretary's Office kept open during the Parliamentary Session, and at other times, for the convenience of the Irish Chief Secretary.

He remained in charge of the Irish Office in London until 1883, when he was made head of the Financial Division of the Chief Secretary's Office in Dublin.

Cullinan commenced climbing early in the seventies, and was elected a member of the Alpine Club in 1878.

While living in London he attended regularly the meetings of the Club, but after his transfer back to Dublin in 1883 he scarcely ever had the opportunity of being present at them.

Also in these years he went to the Alps for climbing as regularly as he could, but the length of the Parliamentary Sessions often prevented him from coming out before September.

I do not recollect his being in the Alps after 1885. He climbed principally in the Zermatt, Chamonix, and Oberland districts.

Unfortunately my memory is defective as to many of his expeditions, but I think he ascended most of the higher mountains in the Zermatt district. I recollect accompanying him up the north side of the Breithorn (starting from Zermatt) and crossing the Bies Joch: also we made together the first ascent of the Täschhorn from the Dom Joch.

In 1879 he was in the party who made the first ascent of the Aiguille de Talèfre, of which he wrote an account in the *JOURNAL*, and accompanied by the late Mr. Baumann with Emile Rey and Josef Moser as guides he made the second ascent of the higher Aiguille du Dru. Curiously enough, as well as I recollect, the first ascent of the Lower Dru was made on the same day.

In the Oberland district he ascended the Gross Lauteraarhorn and the Gross Viescherhorn with Sir Edward Davidson and myself; also he ascended the Eiger and Bietschhorn with the late Sir Maurice Holzmann: the steps which they cut on the latter mountain probably saved from disaster a guideless party headed by Emil Zsigmondy, which reached the top from the southern side later in the afternoon of the same day and was overtaken by a violent storm in descending by the Northern arête.

In December 1891 Cullinan had an extraordinary escape from



[Sican Electric Engraving Co., Ltd.]

SYDNEY LOCKE KING.

1873—1914.

death. His room in Dublin Castle was on the ground floor, immediately over a cellar : some repairs were being done in the cellar, and several workmen employed in executing them ; at the midday dinner hour, when the workmen had gone out, a man dressed similarly to the workmen employed walked into the office, went down to the cellar and placed an explosive machine there. Having set it going, he walked out of the office without having attracted any special observation. Just at this time Cullinan fortunately left his room and went to another part of the office to discuss some matter with the Under-Secretary for Ireland. The machine exploded, blew up the floor in Cullinan's room, and blew to pieces the chair in which he had been sitting a few minutes before. No person was made amenable for the outrage, but the perpetrator was supposed to belong to some secret revolutionary society, and the man suspected by the police shortly after became insane and was confined in an asylum, where he subsequently died. There is no doubt that there was no animosity personally against Cullinan : he never mixed in political controversies, had nothing to do with police administration, and confined himself altogether to the financial matters of his department.

In 1892 Cullinan married a daughter of Sir William Kaye, C.B., Q.C., then Assistant Under-Secretary for Ireland, and a numerous young family now survive him.

In 1911 Cullinan gave up his official position on attaining the age of sixty-five, and was appointed a K.C.B.

He was naturally of a very retiring disposition, but for those whom he knew intimately he had many and great attractions : he was a good climber, fast, light and safe, and always a most even-tempered, unselfish, and agreeable companion.

His end came somewhat suddenly : he had just finished building in North Wales a house where he hoped to spend parts of the years of his retirement, surrounded by his family, among the Welsh mountains which he loved so well.

G. F. G.

SYDNEY LOCKE KING.

IN Sydney Locke King, who lost his life by a lamentable misadventure on February 22, 1914, being swept away with his two guides by an avalanche after making the ascent of Mt. Cook, New Zealand, the Club has lost a loyal and energetic son. Of magnificent physique, an athlete from his childhood, hard, untiring, possessing perfect health and blessed with strong common sense and the courage which refuses to take unnecessary risks, King had already achieved great results and, had his life been spared, would probably have left a record surpassed by few mountaineers. In the Club he was comparatively little known, but this was chiefly due to his modesty and absence of push ; he was singularly reticent about

his own exploits and free from that tendency to 'shop' which is found in many good and most mediocre performers; few men were less given to blowing their own trumpet, but his friends knew his real value and his death leaves a gap in many a heart which it will be hard to fill. One of them writes of him: 'He dearly loved the mountains but was never fool-hardy, his first thought was always of other people'; and again: 'It is good to remember what a large number of friends he had, rich and poor, old and young, mankind and womankind, public-school men and men without any schooling: he was equally beloved by his "Corinthian" friends and by the costermonger who saluted him in Bishopsgate Street with the cry of "Play up, Peter."'

Sydney Locke or, as he was always known in his family and among his intimates, "Peter" King was born September 25, 1873, at Loughton in Essex, and was the youngest of the five sons of Mark W. King. He was educated at Highgate School (Cholmeley), obtaining an entrance scholarship at starting and finishing his career there as a Prefect and in the VI. form. He was a good all-round athlete, in the First Cricket XI. and the First Football XI., and winning in 1891, when under eighteen, the two 'jumps,' the 'hurdles' and the 'cricket-ball' at the school sports, the last with a throw of 110 yds. 2 ft. which constituted the public school record for the year.

After a few years in business in the City he settled down at Rickmansworth to a country life. He played cricket regularly and was a successful bowler; he was also a very good club lawn tennis player and a skilful gymnast. But it was in Association football that he especially excelled; in the annals of the Corinthians and the Casuals his prowess as a full-back will long be remembered, which position he occupied up to his fortieth year—a truly astounding record—while for fifteen years he worked indefatigably in the interests of the latter club as Secretary and Treasurer.

Apart from sport his chief hobbies were gardening and photography; in the latter he found the best of adjuncts to the joys of climbing; he chiefly employed the Richard stereoscopic camera and produced with it an exceptional if not unique series of Alpine pictures.

It was in 1902 that he seriously turned his attention to mountaineering, though for some years previous he had taken extensive walking tours in the Bernese Oberland, Savoy and over the passes of the Graian Alps. His climbing career lasted for twelve years, included some hundred peaks and covered a considerable part of Switzerland and Savoy. Space forbids us to attempt to enumerate his ascents. He commenced gently as wise men do; his first three years, 1902, 1903, 1904, were spent in Saas Fee learning the rudiments of the craft; in 1905 he was at Arolla and Zermatt chiefly; in 1906 at Saas Fee and Zermatt—it was during this season that he accomplished what was perhaps his most noteworthy achieve-



Wm. Duffus, photo.]

[Sloan Electric Engraving Co., Ltd.]

GEORGE THOMAS AMPHLETT.

1851—1914.

ment, the ascent and descent of the Dom on the Saas Fee side, a feat we believe not previously done or since attempted; and it was in this year that he was elected a member of the Alpine Club; 1907 found him in the Oberland, 1908 at Chamonix, 1909 in Savoy; in 1910 he passed through Savoy to the Italian side; in 1911 he was again at Arolla and Zermatt; in 1912, a very successful year in spite of bad weather, he included Chamonix, Arolla, Zermatt and Savoy in his programme; while in 1913, a year of notoriously evil fame, his list was no short one. His chief companion was his brother William I. King, his principal guides Ambros and Oscar Supersaxo, Alphonse Simond, Abel Amiez of Pralognan, and Henri Brocherel of Courmayeur.

His last expedition, a winter trip to New Zealand by way of Canada and the Pacific, was undertaken with a view of climbing in the south island: he reached Auckland on January 15. Details of the ascents attempted and accomplished have not yet been received, but we hope that an account of them may be supplied to the ALPINE JOURNAL by Mr. J. R. Dennistoun, A.C., of Peel Forest, Canterbury, or Lieutenant G. Dennistoun, who were his companions on some of the expeditions. His end came tragically on February 22 when, after climbing Mt. Cook from the Tasman side, he and his guides, D. Thomson and J. Richmond, in descending the Linda glacier were overwhelmed by a huge avalanche which fell from an overhanging ice-wall between the Silberhorn and Teichelmann peaks. One body, that of one of the guides, was found; all attempts to recover the other victims proved unavailing.

Thus perished a true sportsman and gentleman, a knight *sans peur et sans reproche*, by a fate too hastily called untimely but, when tried by the wiser standard of the old Greek philosopher, a happy one, for during life he enjoyed to the full some of the greatest blessings that life has to offer and he has passed from us before he could lose them.

E. B. MOSER.

GEORGE THOMAS AMPHLETT.

THE sudden death of George Thomas Amphlett, at the age of 63, at Salisbury, Rhodesia, from malaria, has cast a gloom over mountaineering circles in South Africa, where most of his climbing was carried out. By the members of this Club who knew him he will be sadly missed.

Educated at the Philological School, Marylebone, and at King's College, London, he came to South Africa in 1881 on the staff of the Standard Bank of South Africa, and only retired on January 31 last. He then left for his farm in Rhodesia, with the intention of later on joining two members of the Mountain Club of South Africa on an expedition to Kilimanjaro, and then on a tour in Switzerland.

He was one of the foundation members of the Mountain Club of South Africa, and occupied the chair of Vice-President and later of President for two years. He was also a member of the Fell and Rock Climbing Club, and was elected a member of this Club in 1911.

In 1907 he married Theodora Mildred, daughter of the Rev. J. James of Longstrutton, Somersetshire. His first visit to Switzerland was in 1898, when he made the ascents of Pilatus, the Furkahorn, Finsteraarhorn, Monte Rosa, Breithorn and Mönch. Since then he made various visits to the Alps, Dolomites and Pyrenees. His love and enthusiasm for the mountains was second to none, and those who had the privilege of knowing him as intimately as the writer, will always miss his cheerful countenance and friendly advice on all mountain matters. Our deepest sympathy goes out to his bereaved wife.

G. F. TRAVERS-JACKSON.

FRANZ PÖLL, OF MATHON.

AT the great age of 96 this link with a long past period of mountaineering has passed away. Born in 1818 at Galthür, in Paznaun, he passed the early years of his manhood with the colours, and served under Radetzky in the war of 1849. On the other side may have been serving another well-known man, Jean Antoine Carrel, and their military experiences had doubtless something to do with the enterprise—or one might say dauntlessness—which raised them above their fellows and singled them out as leaders when the great mountains came to be subjected to sustained attack.

Pöll next appears as *Schäfer* or shepherd at the Alp Larain, and when in 1861 Weilenmann came to Paznaun hoping to ascend the then unclimbed Fluchthorn, Pöll, dealer, shepherd, chamois hunter, occasionally smuggler, was instantly named as the man to get.

It is to Weilenmann's classic book that we owe the picture which sends down Pöll to the ages, a living entity.

Short and broad-shouldered, with an enormous 'Schnauzbart' and flowing locks, of which he was very proud, he was, when in the mood, a famous *raconteur* of his experiences. His 'guiding' consisted in going at a great pace, occasionally halting to let the traveller catch up, whereupon off he went again.

There are few pages in Alpine literature that are comparable for vivid description of the outwardly placid and apparently uneventful, yet, to the actors themselves, quick pulsating life of the Alp, to chapters like 'Stilleben in Galthür' and 'Auf der Alp Larain.'

In his smoothly flowing, almost conversational prose, Weilenmann paints us a picture as minute as an interior by a great Dutch master. Probably few phases of life have changed so little as that of the Alp, which represents the oldest human industry. Doubtless one great charm of Weilenmann's writings is that we thus recognize from our own experience the truth of the picture so skilfully presented

and, revelling in the keenly human observation of the master, live again great days of the past.

Weilenmann and Pöll were another pair like Whymper and Croz, Tyndall and Bennen, Freshfield and Dévouassoud, Coolidge and Almer, and many another Alpine partnership that has gone to make history.

The Fluchthorn fell at the first assault. Other ascents followed, such as, in 1864, the ascent of the N.W. or lower point of Piz Roseg, which had only once been ascended. Pöll urged his Herr to come again to conquer the highest point, declaring that but for the distance he would come by himself to do it, and in fact he did return the same autumn with J. A. Specht, but got no further than before. The following year Weilenmann and Specht joined forces and, led by Pöll and Jakob Pfitscher 'der Passeirer,' returned again to the same district, but flew at higher game, making the first ascent of the Crast' Agüzza by the W. arête. Another success was the first ascent of Piz Buin, and on a visit to the Ortler group a serious accident was only averted by Pöll's energy and skill when descending the Königsspitze. In 1871 Weilenmann happened to be at the highest hut in the Jamthal when a huge 'Gejauchze' from two men on the other side of the torrent attracted his attention. One of the men was Pöll. Weilenmann ran down to the edge, but the noise of the waters was too great for them to hear each other, and they parted with great waving of hats. It was to be their last meeting. Born in the same year as Pöll, Weilenmann died eighteen years ago.

When I was in Paznaun in 1881 and 1882 Pöll had a great name, having made several other notable ascents in the district, and in 1904, when well over 80, we read that he was still vigorous and keen to talk over old times with passing travellers. Up to fairly recently a favourite feat of his was to spring backwards from the floor on to a table.

He was in receipt of his soldier's pension and of an allowance from the D. u. Oe. A.-V., so that the wants of his old age were provided for.

And so the name of the *Schäfer* of Larain will go down to the ages, set in the pages of the brilliant writer in whose service, as elsewhere, he never failed to play the man.

J. P. F.

MONT BLANC BY THE BROUILLARD RIDGE.

THE 'Rivista' of the 'C.A.I.' 1914, 53-4, contains an interesting note by Signori G. F. and G. B. Gugliemina, of the gist of which the following is a translation :—

'The S.S.W. buttress of Mont Blanc, or Brouillard ridge, starts at the summit of Mont Blanc de Courmayeur and descends to the surface of the moraines of the Miage glacier. It has attracted

the attention of mountaineers for many years. In 1870 came its first exploration by the Marchese A. Durazzo with two guides, who made the ascent of Mont Rouge du Brouillard, the lowest point of the said buttress. In 1880 Professor Martino Baretta accomplished a somewhat higher point, i.e. the one measured 3966 m., and this ascent was repeated on August 17, 1898, by Signor Giovanni Bobba.* These ascents were made from the side of the Miage glacier by the W. slope of the ridge, with the evident intention of trying to find a new route to the summit of Mont Blanc.

Other parties had also tried the opposite slope from the Brouillard glacier, but always preferred to turn their attention to the Fresnay-Peuteret spur.

The first successful attempt was made by the writers with Signor Natale Schiavi and a porter; our party succeeded in 1899 in attaining [from the Fresnay side] the ridge at the depression, 4007 m., between the points 4053 m. and 4472 m., but considered the crest rising from the depression to this latter point was impassable; we therefore descended by the opposite slope, Mont Blanc glacier side, thus effecting the first crossing of the Col Emile Rey.

On July 20, 1901, our party, accompanied by Joseph Brocherel, then a porter, managed to attain, by its W. slope, the upper Brouillard watershed at a spot between the Col Emile Rey and the point 4472 m., which was thence attained in 15 minutes and christened Picco Luigi Amedeo.† Thence we continued throughout by the ridge to the summit of Mont Blanc, thus accomplishing its first ascent by the Brouillard buttress. The ascent was quite sufficiently prolonged by the difficulties of the lower slopes of the buttress and the bad condition of the mountain, which from a height of 3900 m. onwards was covered with snow.

The description of the Brouillard ridge, as well as the story of the explorations and the first conquest of Mont Blanc by the said buttress, were fully described in the monograph, "Il versante italiano del Monte Bianco," by Ettore Canzio, Felice Mondini, and ourselves, published in "Boll." xxxv. No. 68, 1902.

The Col Emile Rey has not again been crossed, but was attained

* See *Bollettino*, 1902, pp. 190, 227-8. Bobba had already attempted Mont Brouillard on July 23, 1894, from the Miage side with the guides Casimiro Thérissod, Pietro Re Fiorentin, and a porter, the party attaining a depression of the S. arête at an altitude of c. 3450 m.

† Dr. Blodig, in his account, does not consider the point 4472 m. worthy of special mention. We beg, however, to differ from him, for the following reason. In all the ridge from Mont Blanc de Courmayeur to the Col Emile Rey, this is the one point which the surveyors have considered worthy of measurement, as this is the most accentuated and defined peak on the said ridge; in fact it is conspicuous from all the adjacent glens. We therefore are agreed that owing to its height and imposingly enormous construction a name should certainly be applied to it, on the same principle that the name Pic Tyndall has been applied to the S.W. shoulder of the Matterhorn, and Punta Giordani to the S.E. shoulder of the Vincent's Pyramide—to take only two classical examples.

from the Mont Blanc glacier, by the same route as our descent of 1899, by Dr. Blodig in 1906, then by Mr. Jones in 1907 when exploring the possibility of attaining the Picco Luigi Amedeo direct from the said pass, thus completing the exploration of this still untraversed portion of the ridge. It was on this occasion that Dr. Blodig made the first ascent of the point 4053 m. from the Col Emile Rey; our party in 1899 had not attempted it, thinking that Baretto had climbed it in 1880.

The second ascent of the Picco Luigi Amedeo and of Mont Blanc by this buttress was only accomplished ten years after ours, on August 9, 1911, by Messrs. Blodig, Young and Jones, with the guide Josef Knubel. This party, from the Col Emile Rey, with one digression on to the Brouillard slope, attained the crest of the ridge at about the same spot as we did, i.e. about 15 minutes from the summit of the Picco Luigi Amedeo.

After due consideration of this route from the Col Emile Rey and appreciation of it as accomplished for the first time by Dr. Blodig's party (subsequently repeated by Herr H. Pfann and Count Ugo di Vallepianta,† also by the Pühn-Adolphe Rey party)—after, we say, duly recognising its importance, as we have done—it is nevertheless necessary to give natural precedence (already duly recorded by us in our publications) to the fact that the first ascent of Mont Blanc by the Brouillard ridge is, and as such must remain, that of the Italian party of 1901; the route followed by the 1911 party over the said ridge is only the first ascent of the Picco Luigi Amedeo from the Col Emile Rey, constituting altogether but a "variation" of our route.

This fact has been duly acknowledged by Herr Pfann in his article on Mont Blanc in the "*Zeitschrift des D. u. Ö.A.V.*," 1912, and privately by the letters of Mr. H. O. Jones which we have in our possession.

ACCOUNT OF THE CONGRESS AND BANQUET HELD ON THE OCCASION OF THE JUBILEE OF THE ITALIAN ALPINE CLUB.

In August 1913 Mr. Withers and I were requested by the President of the Alpine Club to represent the A.C. at the Jubilee Congress and Banquet of the Italian Alpine Club, to be held at Turin on September 7. Mr. Withers was unable to go, so I agreed to assume the responsibility alone, though I realised with horror that the undertaking would involve my making a speech before some of the

* See the reminiscence published by Dr. Blodig in *Ö.A.Z.*, January 1907.

† This party, after following from the Col Emile Rey the same route in its lower portion as Blodig's expedition, turned to the left and attained the crest about 100 metres above the pass, then by the crest, traversing of course the point reached by the two previous parties, attained the Picco Luigi Amedeo.

most eloquent members of one of the most eloquent nations in Europe.

On September 6, I accordingly tore myself away from the Monte Rosa Hotel, and after much missing of trains, arrived at Turin some three hours later than I had intended—too late, in fact, to report myself that evening. On the following morning, I strolled to the headquarters of the Italian Alpine Club, and presented myself to a clerk there, who was polite, but evidently shocked at my lack of written credentials. He informed me, much to my dismay, that the Congress was to begin at 10.30, and the banquet at noon, instead of the evening. I therefore hastened back to my hotel, donned my evening clothes, and drove as quickly as possible to the Castello del Valentino, where the Congress was taking place.

I sent in my name to Count Cibrario, the Hon. Secretary of the Club, and was received with the courtesy and cordiality which Italian mountaineers invariably extend to their English colleagues. If it be not invidious to single out one where all were so kind, I should like to express my gratitude to my friend Guido Rey for the trouble he took to make me feel at home.

When I entered, the Congress had begun. Speeches were made by several Italians, amongst whom were the President, the Hon. Secretary, and the Mayor of Turin, and many telegrams of congratulation were read from members of the Royal family and others. The speeches at the Congress were necessarily somewhat long, dealing as they did with the origin, history and progress of the Club, and no foreign representatives spoke.

At noon the Congress broke up, and the members adjourned to the adjoining Ristorante del Valentino, where the banquet was to be held. I fancy some 350 persons were present including a few ladies. As the representative of the mother of all Alpine Clubs, I was given a place of much honour. About halfway through the banquet, seeing that nothing had been said to me about a speech, I began to feel happier, and to enjoy my food. But alas! my rejoicings were premature, for presently a courteous gentleman went round the room, sentencing a victim here and there, and not omitting me.

Speeches were made by the President of the Club, by the Colonel of an Alpine regiment, and by Senatore Blaserna, the venerable Vice-President of the Italian Senate. The latter spoke in eloquent terms of his friendship with Quintino Sella, Minister of Finance and founder of the Italian Alpine Club in 1863. Other speeches by Italians followed, and then came the turn of the foreign representatives. First of all the President of the French Alpine Club made an excellent speech in French, and I was called upon next. Notwithstanding my repugnance to public speaking, the kindness of the audience made my task comparatively easy. I was followed by the Swiss representatives, by the President of the Lyons Section of the French Club, and by many others, conspicuous amongst

whom were delegates from the Trentino. At about four o'clock the proceedings came to an end, and we dispersed.

I am sure that all the foreign representatives, including myself, departed full of good wishes for the continued prosperity of the Italian Alpine Club, and of gratitude to its members for their kindness and courtesy.

J. E. C. EATON,

LE PAIN DE SUCRE (AIGÜILLES DU SOREILLER).

WHEN describing one of his ascents, cf. 'A.J.' xxviii. 80 (New Expeditions), Dr. Guido Mayer remarked :

'Dr. Coolidge and M.M. H. Duhamel and F. Perrin give the name "Pain de Sucre" to a point on the ridge of the Aiguilles du Soreiller which was ascended in 1877, cf. "The Central Alps of the Dauphiny," 2nd edit., 1905, page 55.

'According to unanimous local statements the name, however, belongs to the gigantic rock tooth, forming on three sides unapproachable precipices 400 m. high, and which the above-mentioned authorities call the "fine rock needle which forms the S. end of the S. arête of the Pain de Sucre."'

In a postcard addressed to the Editor of the ALPINE JOURNAL Dr. Coolidge remarks, *inter alia* :—

'The name P. de S. belongs to the peak so named in my book, not to his (Mayer's) obelisk. See "Ann. C.A.F." 1877, p. 257, where the two are carefully distinguished on the authority of old Gaspard.'

The following extracts from the paper alluded to (by M. Edouard Rochat) bear on the point :

'L'ascension du Pain de Sucre, montagne qui domine le Glacier de la Selle.' . . .

'Bientôt on aperçoit devant soi le Pain de Sucre, qui est une des pointes de l'Aiguille du Soreiller, puis un peu sur la droite une tranche de rocher qui ressemble à une immense lame de couteau, et que je crois absolument inabordable.' . . .

'La carte du Pelvoux 1.40000 porte 4 altitudes différentes . . . ce sont en allant de l'Ouest à l'Est les côtes 3320, 3317, 3358, 3387 m. . . . Je pense que la pointe de l'Aiguille du Soreiller désignée dans le pays sous le nom de Pain de Sucre a 3358 m. de hauteur, mais je ne l'affirme point.'

It is obvious, therefore, that when this article was written, nearly forty years ago, Père Gaspard, who led the party, was understood to indicate the name Pain de Sucre as belonging to one of the points of the main arête of the Aiguilles du Soreiller. Four years later, however, we find no less an authority than M. H. Duhamel

(cf. *Annuaire C.A.F.* 1881, p. 5) apparently applying the name Pain de Sucre to the 'pic bizarrement effilé qui se dresse au milieu du cirque,' and which is none other than Meyer's obelisk!

If we now turn to the *ALPINE JOURNAL*, vol. xiv. p. 378, which covers the year 1888, we find the following: 'The descent was made by a steep snow couloir to the Soreiller basin in full view of the crater-like Tête du Soreiller and with a remarkably sharp aiguille called Pain de Sucre straight in front.' This name was presumably given to the Aiguille or 'Mayer's Obelisk' on the authority of the local guides of the expedition. It is somewhat disconcerting to note that they were old Gaspard and J. B. Rodier. It would appear therefore that unless the traveller of 1877 or the travellers of 1888 misunderstood Gaspard he had between these dates altered his opinion as to where the name 'Pain de Sucre' belonged, and at the later date applied it to 'Mayer's Obelisk' and not to one of the points on the main Soreiller arête. On the analogy of the Pain de Sucre on the Requin-Plan arête the name seems to be applied to a prominent or striking tooth or tower on an arête and is, in this respect, more applicable to 'Mayer's Obelisk' than to one of the points on the Soreiller arête. The 'fine rock needle' or 'lame de couteau' which M. Rochat considered absolutely inaccessible and which forms the S. end of a great buttress at right angles to the main arête, the junction being point 3358, is the point ascended by Dr. Guido Mayer with Angelo Dibona on June 27 last, as recorded on p. 80 of the present volume. Dr. Mayer originally proposed to name this point 'Aiguille Dibona,' but when he got back to La Bérarde all the guides present declared that M. Rochat had made a mistake, that the point 3358 ascended by him bore no name, and that the name Pain de Sucre was applied locally to the Aiguille ascended by Dr. Mayer. Dr. Mayer made subsequent inquiries of other guides, who confirmed the statement as to the present practice. It would appear therefore that the younger guides follow the nomenclature of 1888.

Dr. Mayer felt compelled in response to the invitation contained in the Preface to 'The Central Alps of the Dauphiny' to point out this discrepancy.

It appears to be difficult, at his great age, to get any information from Père Gaspard.

Dr. Mayer does not, of course, *lay claim* to the name Pain de Sucre for his summit; he simply states the name which *at the present time* is given to it locally, and it is, of course, not within his power to alter this.

In any case the point ascended by Dr. Mayer is so outstanding that no confusion can occur whatever name it may finally bear.

The name 'Aiguille Dibona' has sufficient precedent in other personal names in the district to be a very proper one, and as the name Pain de Sucre in the Coolidge 'Guide' and the Duhamel map,

both of course authoritative documents, to the authors of which every climber who visits Dauphiné is under the greatest obligation, is already allocated to the Aiguille du Soreiller 3358, Dr. Mayer will no doubt adopt the other name to indicate his summit in Alpine literature, whatever the local name may be.

Dr. Mayer further points out that while Dr. Coolidge's 'The Central Alps of the Dauphiny' places the Pain de Sucre of 1913 at the S. end of the S. arête of the Aiguille du Soreiller 3358, the Duhamel map only gives the Aiguille 3317 a S. arête and none to 3358. It should be noted that M. Rochat is less definite as to the point to which the name Pain de Sucre is to be attributed than is the Guidebook. A careful study of the descriptions of the routes up the four Aiguilles du Soreiller in 'The Central Alps of the Dauphiny' would however appear to confirm the conclusion as to the point reached by M. Rochat therein arrived at, and in this case the very valuable map of M. Duhamel will need some correction. It will be obvious that Dr. Mayer does not travel with his eyes shut, and his observations will doubtless be very welcome to those compilers of Climbers' Guides to whom we owe so much.

Since writing the above, I have received the following letter from Dr. Guido Mayer :

'Vienna, 17th May 1914.

'To-day I send you copy of a letter from M. Fouilliand :

"Lyon, le 15 Mai 1914.

"Monsieur et cher collègue,—J'ai bien reçu vos lettres du 8 mai et du 13 mai. Le guide Dévouassoud Gaspard (l'un des fils du guide Gaspard) auquel j'avais écrit me répond qu'il est *absolument d'accord* avec Rodier : Le nom de *Pain de Sucre* est unanimement réservé à la pointe que vous avez gravie en 1913 et n'est pas du tout appliqué à l'une des aiguilles du Soreiller.

"J'écris à ce sujet à M. Coolidge."*

'You see that I was quite right when I corrected the appellation (or better misnomer) of the "Climbers' Guide." Perhaps Mr. Coolidge who has only spoken of the name in private letters [it will be noted that Dr. Coolidge wrote officially to the Editor of the *ALPINE JOURNAL*] will prefer to publish nothing about the "Pain de Sucre" in English or French Journals. But I think he does not know of the letter of the guide Rodier, . . .

'I have received a letter from M. Henri Duhamel, forwarded

* Translation :—'The guide Dévouassoud Gaspard (one of the sons of the guide Gaspard) . . . replies that he is *absolutely in accordance* with Rodier : The name *Pain de Sucre* is unanimously reserved for the point which you climbed in 1913 and is not at all applied to one of the Aiguilles du Soreiller.'

to the address of M. Fouilliand, in which he states that he would try to finish the controversy about Pain de Sucre by adopting the name of *Cime du Pain de Sucre* for the summit climbed by M. Rochat and the name of *Aiguille du Pain de Sucre* for the aiguille climbed by Dibona and myself.

‘Your very obliged
GUIDO MAYER.’

Annexed is a copy of the letter from Jean Baptiste Rodier, fils, to Dr. Mayer, a copy of which was offered to Dr. Coolidge :

‘La Bérarde, le 5-5-14.

‘Monsieur le Docteur Guido Mayer.

‘Monsieur,—J’ai la douleur de vous dire que mon père auquel vous vous adressez (pour le nom de l’aiguille dans la Montagne d’Amont des Étages) est décédé le 7 avril à la suite d’une longue et cruelle maladie.

‘Enfin je suis moi-même tout à votre disposition pour quelque renseignement que ce soit et dont vous pourrez avoir besoin.

‘Et j’ai l’honneur de vous dire que *moi et mes camarades* ne connaissent cette Aiguille que sous le nom de “Pain de Sucre,” et ce n’est donc que sous ce nom qu’elle a été nommé jusqu’à présent.*

‘Agréez, Monsieur, s’il vous plaît, mes sentiments respectueux et dévoués.

(Signed) ‘JEAN BAPTISTE RODIER (fils).

‘Guide à la Bérarde en Oisans par Venosc, Isère, France.’

It will thus be seen that both these guides entirely support Dr. Mayer’s statement.

M. Fouilliand, editor of the *Revue Alpine*, has had the courtesy to send me for perusal the letter from M. Henri Duhamel, a name as well known as it is highly honoured among all mountaineers. In the most charming style the writer deals with the question at great length, and makes the suggestion stated in Dr. Mayer’s letter to me. I venture, however, to think that it will lead to confusion to have a cime and an aiguille du Pain de Sucre, and to adhere to the suggestion to name Dr. Mayer’s point the Aiguille Dibona. M. Duhamel’s letter contains the following characteristic words :

‘Personnellement je sais toujours fort gré aux alpinistes qui veulent bien me permettre de rectifier la carte du Pelvoux. J’ai profondément regretté que les appels faits par moi à ce sujet, en particulier lors de chaque réédition de ma carte, soient demeurés à

* Translation :—‘And I have the honour to tell you that *I and my comrades* only know this Aiguille under the name of “Pain de Sucre,” and this is hence the only name by which it has been called up to now.’

presque complètement sans réponse. Aussi M. G. Mayer peut-il être certain que ses observations ne sauraient être autrement qu'accueillies avec déférence par moi.*

J. P. FARRAR.

THE ALPINE CLUB LIBRARY.

The following works have been added to the Library this year:—

Club Publications.

- Akad. Alpenklub Bern.** VIII. Jahresbericht 1912–1913. 1914
 9 × 6½: pp. 18.
 New expeditions: *O. A. Hug*, Gde Dent de Moreles, I. Aufst. ü. d. N.-Wand: *Gr. Muveran*, I. Aufst. ü. d. N.-Grat: *E. Häberli*, Bietschorn, I. Abst. ü. d. N.-Flanke d. Sporns.
- Akad. Alpen-Club Zürich.** XVII. Jahres-Bericht für das Jahr 1913. 1914
 9 × 6: pp. 47: portraits of *E. Wagner* and *F. Korrodi*.
 Among the 'Neue Touren' are:
G. Finch, Tällhorn N.-Grat: Stecknadelhorn O.-Flanke: *J. Heller*, Mittl. Blaubergst. W.-Grat u. S.-Wand Abstieg: *G. Miescher*, Stäfelpass Ueberschreitung: *Gr. Windgälle* W.-Grat im Aufstieg: *E. Schaub*, Sirtenturm: Pfaffenturm W.-Grat: *M. Kurz*, Poncione di Manegorio: Kühbodenhorn O.-Grat: *Poncione di Rovino*, Abstieg n. S.: *P. di Pesciora* O.-Wand: Saashörner: *G. Finch*, Bifertenstook W.-Grat: *Porphyr*, N.-Flanke: *P. Schucan*, *P. Serengia*: *P. d. Plattas* O.-Grat: *P. Platun* N.-Grat: *P. Sampnoir* S.-Grat: *P. Git* S.-Grat: Tuors: *Paradis*: *R. Staub*, Cima di Ruggiolo Traversierung: Corno di Campo S.-Wand.
- Akad. Alpen-Verein Berlin.** X. Jahresbericht 1913. 1913
 9½ × 6½: pp. 54: portraits of *H. Kath* and *K. v. Mossengeil*.
 First ascents recorded are:—*E. Birk*, *Pizzo Coro*: *A. Heinze*, *Rjovina* N. W.-Wand.
- Appalachian Mountain Club.** Register for 1914.
 6 × 4½: pp. 98.
- Associazione 'Libertas' Fascio Alpinisti.** Bollettino sociale per l'anno 1913. Torino, 1913
 5½ × 3½: pp. 16.
 'Diffondere fra gli operai l'amore per le escursioni alpine e per tutte le sani manifestazioni sportive.'
- C.A.F. La Montagne.** Revue mensuelle. 9me année. 1913
 8½ × 5½: pp. xxxvi, 708: ill.
 Among the articles are the following:—
H. Barth, Les alpes du Sanntal.
A. Viallat, Premières escalades aux Aigs. de Rieutort.
A. Schrader, Gavarnie et Arazas.
A. Cayla, Brèche Joseph Turc.
M. Bal, Quelques sommets pyrénéens: ascensions sans guides.
V. de Cessole, Ascensions nouvelles à la cime sud de l'Argentera.
J. d'Ussel, La Crête des Tempêtes, premier passage.
J. Wehrlin, Le Col des Cristaux et les Courtes.
H. Biendl, A travers les Dolomites de Sexten.

* 'Personally I am always greatly obliged to climbers who are good enough to assist me to correct the map of the Pelvoux. I always profoundly regretted that the appeals made by me for such help, especially at each revision of my map, remained almost entirely without response. M. G. Mayer may therefore be certain that his observations cannot be received by me otherwise than with deference.'

C.A.F. La Montagne. viii^e concours international de ski. Briançon 5-9 février
8½ × 5½: pp. 12. 1914

— **Section des Pyrénées Centrales, Toulouse.** Bulletin mensuel. Années
1-4, No. 1-32. 1911-1914
8½ × 5½: ill.

Among the articles are the following:—

- No. 2. M. Farid, Pic de Céciré, première ascension en skis.
- No. 8. G. Kunne, Première ascension du Col Maudit.
- Nos. 16-21. F. Lary, Excursion au Canigou.
- No. 24. E. Bergis, Le Badet par l'arête sud.
- No. 30. J. Duffour, Bec du Corbeau.

— **Sud-Ouest.** Bulletin. Janvier 1914

10 × 6½: pp. 96: plates.

Among other articles this contains:—

- R. Germain, Rochebrun et l'Aig. Noire.
- E. Durègne, A travers la Phocide.

— **Section vosgienne.** Bulletin, 32^e année. 1913

9 × 5½: pp. 108: ill.

Among the articles are the following:—

- R. Mougenot, Courses valaisanes:—Pte Dent de Veisivi: Mt. Blanc de Seillon: Dent-Blanche: Aig. de la Za: Aig. Javelle.

C.A.I. Rivista Mensile, vol. xxxii. 1913

9½ × 6½: pp. 400: ill.

Among the articles are the following:—

- A. Treves, Seconda ascensione del Gran Paradiso per la cresta ovest.
- E. Santi, Tre ascensioni al Pic de Rochebrune.
- A. Magnani, Per uno schedario alpino.
- A. Andreoletti, Un'ottima palestra alpina in Lombardia.
- G. B. De Gasperi, Osservazioni sui ghiacciai dell'Adamello.
- D. Pastorello, La guerra all'alcool in montagna.
- G. Henry, Al mont Vélán, due nuove vie di ascensione.
- A. Grisi, Prima ascensione p. versante N.E. d. Punta Anna.
- G. Hess, La Grande Casse.
- A. Rocatti, I ghiacciai d. Gruppo Clapier-Maledia-Gelas.
- V. di Cessole, Due nuove ascensioni alla Cima Sud dell'Argentera.
- B. Asquaciati, Nel regno delle Dolomiti.
- Caire di Prefouns.
- F. Federici, Il circo terminale del Vallone di Rio Freddo.
- Cinquantenario della fondazione del C.A.I.
- A. Frisoni, Nelle Alpi Apuane.
- A. Calegari, P. Tambo, versante N.N.W.
- W. A. B. Coolidge, I Colli di Fenetre e di Crete Seche nella storia.

Among first ascents described are the following:—

- A. Balabio, P. del'Omo, P. d. Diavolo di Tenda, cresta N.: G. B. Piaz, Torre Winkler, parete N.: G. Scotti, Corno d. Rinoceronte: G. Cattaneo, Sasso Manduino, parete N.W.: C. e A. Locatelli, Dal Crozzon di Lares al Caré Alto: E. Ferreri, Pieta di Lazun, cresta S.S.E.: G. B. De Gasperi, M. Olivia, Terra d. Fuoco: A. Hess, Cima d. Sueur, cresta N.: P. Robbiati, P. Varrone, P. d. Boccareccio, Pta d'Aurona: O. Robella, Colle dei Savonesi: G. Zapparoli, Bocchetta di Spassato o d'Arnasca, Pta Como, P. Ligoncio: V. Ronchetti, Nel Caucaso: L. Binaghi, Pte Aig. d. Glaciers, parete S.E.: L. De Riseis, Pta Innominata: D. Bertoni, Torri di Veglia.

— **Milano.** Gite sociali, gite giovanili per l'anno. 1914

5½ × 3½: pp. 12.

Cairngorm Club. Journal, vol. vi. Nos. 36-42. July 1911-January 1914

9 × 5½: pp. xv, 343: plates.

Among the articles are the following:—

- H. G. Drummond, Climbs in Glen Clova and Glen Doll.
- J. R. Levaack, A week at Sligachan.

- R. Anderson, The Colorado Rockies.
 J. M'Coss, Kincardineshire coast climbs.
 Miss Adam, A summer camp in the Canadian Rockies.
 J. R. Levack, A fortnight in Zermatt.

Club alpin monégasque, Monaco 1913. Statuts. 1913

10½ × 8½: pp. 6.

'De faciliter et de propager la connaissance et l'étude exactes des montagnes par tous les moyens.'

Club Alpino fiamano. Liburnia, Rivista bimestrale. Anni 10-12. 1911-1913

10 × 6½: plates.

Among the articles are the following:—

10. C. Asperger, Cima Piccola (Kl. Zinne).
 R. Gigante, Il Jof Fuart.
 G. Asperger, Una salita invernale del Tricorno (Triglav).
 G. Intihar, Grintovec.
 G. Depoli, I nostri monti: il Carso.
11. G. Intihar, Obruc.
 — Sul Planik d'inverno.
 — Sul Risnjak d'inverno.
 G. Depoli, Bibliografia speleologica fiamana.
12. C. Asperger, Sull'Amkogel.
 — Tricorno.
 G. Intihar, Mittagskogel.
 — Nel gruppo del Crni vrh.
 G. Depoli, I nostri monti.
 — Sul Mte Maggiore di Laurana.
 — Vela Plis e Mlicni vrh.
 A. Tomsig, Sul Cervino.

D.u.Oe.A.-V. Mitteilungen. Geleitet von Heinrich Hess. N. F. Bd. xxix, Jahrg. 1913. München, Lindauer, 1913

11½ × 8½: pp. viii, 348.

Among the articles are the following:—

- J. Mayr, Jochwanderungen in d. Tuxer Vorbergen.
 Neue Touren in den Ostalpen, 1911.
 G. Mayer, Die Südwand d. Meije. I. Erststeig. d. Hauptgrates v. Glacier d. Etançons.
 R. Sieger, Neue Forschungen in d. Almregion.
 H. P. Kiene, Die Pössnecker Weg. Ein versicherter Klettersteig v. Sellajoch auf d. Sellaplateau.
 A. Lechner, Durch d. westl. Kaukasus. Schilderung d. Münchener Kaukasus-expedition 1912.
 W. Palme, Aus dem Bergkranz der Langkofelhütte.
 G. Uitz, Kletterfahrten in d. Gesäusebergen.

— Allgäu-Kempten. 42. Jahresbericht, 1913. 1914

8½ × 5½: pp. 25.

— Frankfurt a. M. Bericht 1913. 1914

8½ × 5½: pp. 48.

— Hannover. 29. Jahresbericht, 1913. 1913

8½ × 5½: pp. 30: ill.

The Section is building a hut on Mawensi, Kilimandsharo. A map of the region is given showing position of the hut.

— Heidelberg. Jahres-Bericht, 1913.

8½ × 5½: pp. 18.

— Jung-Leipzig. Jahres-Bericht für 1913 mit Rückblick bis zum Gründungsjahr der Sektion 1908. 1914

9½ × 6½: pp. 46.

Contains library catalogue.

— Männer-Turn-Verein. 8.-10. Jahresberichte. 1911-1913

8½ × 5½: plates.

— Reutlingen. 8. Jahresbericht. 1913

8½ × 5½: pp. 21: ill.

D.u.Oe.A.-V. Villach. Jahres-Bericht über das xlv. Vereinsjahr 1913. 1914
9 × 5½ : pp. 56.

Fell and Rock Climbing Club. Journal edited by W. T. Palmer. Vol. 3, no. 1.
8½ × 5½ : pp. 134 : plates. 1913

Among the articles are :—

H. P. Cain, Buttermere climbs.

J. R. Thackrah, Pyrenees.

Miss R. Murray, A blizzard on Doe Crag.

S. W. Herford, Stabeler and Winkler Türme.

J. Laycock, New ascents, Lake District.

G. F. Woodhouse, New climbs, on the Napes and Eel Crag Gully.

Ladies Alpine Club. Second annual report.

4½ × 3½ : pp. 24.

— Calendar 1914.

5 × 3½ : pp. 8 : plates.

Ladies' Scottish Climbing Club. Sixth annual record, 1913. 1914

5½ × 4 : pp. 43.

Mazamas, Portland. Mazama, vol. 4, no. 2.

December 1913

10½ × 6½ : pp. 85 : plates.

Among the contents are the following :—

W. D. Lyman, Indian myths of Mt. Adams.

H. H. Prouty, A climb on Mt. Robson.

— Climbing on Mt. Hood.

E. C. Sammons, Forsyth Glacier, Mt. St. Helens.

Mary Henthorne, Oregon caves.

Mountain Club of South Africa. Annual, no. 17. Published by the Cape Town Section. 1914

9½ × 6 : pp. 172 : plates.

This is the largest number of the Annual yet published. It is full of interesting matter in connexion with climbing at the Cape : and it is finely illustrated with numerous plates. Among the articles are the following :—

A. W. Norman, The Somerset Sneeuwkop.

The author was killed in 1907 in an accident on Blinkwater Needle, Table Mountain. The article is taken from his diary, now in possession of the Mountain Club.

J. C. W. Moore, Two rock climbs on Table Mountain.

W. C. West, Zon Klip Peak.

E. W. B., The Winterhoecken and another.

A. M. Thorpe, A scramble on Muizenberg Peak.

A. D. Kelly, Ascent of the inner tower of the eastern bastion Mont aux Sources.

H. V. Begley, A face climb in the Hottentots' Holland.

A. H. Hamer, Movement for the protection of wild flowers.

K. Cameron, Peaks of the Witte River district.

W. T. Cobern, First ascent of Wormhole Buttress, Table Mountain.

In connexion with this Annual, we regret to announce the death from malarial fever in February of Mr. G. T. Amphlett, who was President of the Mountain Club and also a member of the Alpine Club.

N.A.V. Kalender.

Rotterdam, Nijgh u. van Ditmar, 1914

10 × 6½ : plates.

— De Nederlandsche Alpen-Vereeniging door Ph. C. Visser.

8 × 5½ : pp. 32 : plates.

Rotterdam, Nijgh u. v. Ditmar, 1914

Description of the Club, index of articles in Mededeelingen, bibliography, etc.

Oe.A.C. Oesterreichische Alpenzeitung. Geleitet von Hans Wödl. xxxv. Jahrg. 1913

10½ × 7½ : pp. viii, 436 : plates.

Among the articles are the following :—

- J. Kugy, Erinnerungen aus dem Dauphiné : Der Pic Gaspard.
 O. P. Maier, Aus dem Karwendel. Die Nordwand d. Riegelkarsp. :
 d. Ueberschreitung d. Riegelkarsp.
 F. Kurz, Eine Winterfahrt auf das Blindenhorn.
 A. Vetter, Eine Besteig. d. Kasbeks.
 E. Franzelin, Der Mount Tacoma.
 F. Rigele, Die Dachstein-Südwand.
 W. Fischer, Die erste Besteig. d. Lagau-Chochs : erste Ueberschrei-
 tung d. Kaltber-Passes.
 O. Schuster, Der Kalper : Aus der Tepli-Gruppe.
 — Besteig. d. Sikara-Taus.
 Andreas Fischer—ein Bergsteigerleben.
 F. Obexer, Erste Besteig. d. ganzen Schreckhorn-Lauteraarhorn-
 Grates : Oestl. Fiescherjoch, I. Ueberschreitung.
 M. Winkler, Eine Kaukasusfahrt : Bergen v. Bezingi : Adür-su-
 Gruppe : Mingi-Tau.
 A. Deye, Neue Turen im Nordzug d. Palagruppe.
- Oe.A.C.** Katalog des Bibliothek. Nachtrag II. Dezember 1913
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 8.
- Oe.T.K. Baden.** 36. Jahres-Bericht. 1914
 $9 \times 5\frac{1}{2}$: pp. 9.
- **Wiener-Neustadt.** 35. Jahres-Bericht. 1913
 9×6 : pp. 31.
- Pénalara : los doce amigos**, Madrid 1913. Pénalara, boletín mensual ilustrado.
 $8\frac{1}{2} \times 6$: ill. Octobre 1913
 Únicamente formaran esta Sociedad el limitado número de doce personas
 de reconocida devoción á la montaña, residentes en Madrid y que
 hayan elegido, una vez por lo menos, á la cumbre de la montaña que
 da nombre á la Sociedad.
- Picos de Europa.** Reglamento Organico de la Sociedad real 'Picos de Europa.'
 $8\frac{1}{2} \times 6$: pp. 9. Potes, 1913
 La Sociedad tiene por objeto fomentar el turismo y alpinismo en los
 Picos de Europa.
- Rucksack Club. Journal.** Vol. 11, 1911 to 1914. Edited by Ernest Broxap.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. vi, 375 : plates. Manchester, 1914
 This contains among other articles :—
1911. E. W. Steeple, A week in Coire Ghreadaidh.
 A guideless ascent of the Dent Blanche.
 The limits of strength of the climbing rope—tests.
1912. E. F. Pilkington, Three weeks in the Canadian Rockies.
 B. B. R., Mountaineering episodes.
 S. F. Jeffcoat, Aletschhorn.
1913. E. A. Baker, Recent cave campaigns.
 J. R. Corbett, Bodlyn Crag.
 S. F. Jeffcoat, Climbs on Hen Cloud and the Roches.
 Robinson, Two climbs in 1890 of Scafell Pinnacle.
1914. R. B. Brierley, Sunny days in Dauphiné.
 W. Wallwork, First visit to Glen Brittle.
 F. C. Aldous, Some Derbyshire climbs.
 T. H. Seaton, A guideless traverse of the Oberland.
 R. H. Isherwood, Laddow.
- List of members, library catalogue, etc. 1914
 $4\frac{1}{2} \times 2\frac{1}{2}$: pp. 60.
- S.A.C.** Die ersten fünfzig Jahre des Schweizer Alpenclub. Denkschrift im
 Auftrag des Centralcomitees verfasst von Dr. Heinrich Dübi. Bern, 1913
 $10\frac{1}{2} \times 7\frac{1}{2}$: pp. vi, 304 : ill.
- Taschen-Kalender für Schweizer Alpen-Clubisten pro 1914. xi. Jahrg.
 $6 \times 3\frac{1}{2}$: pp. 284, 64. Zürich, Tschopp, 1914
- Association of Brit. Members. Rules, List of members, etc. 1914
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. 28.
- VOL. XXVIII.—NO. CCIV.**

- S.A.C. sous-section Chasseron.** Fleurier et le Val-de-Travers. Guide illustré.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 48: map, ill. Neuchâtel, Wolfrath and Sperle, n.d.
- **St. Gallen.** Festschrift zur fünfzigjährigen Jubiläums-Feier der Sektion
 St. Gallen S.A.C. 1863–1913 . . . zusammengestellt von A. Ludwig.
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 128: plates. St. Gallen, Zollikofer, 1913
- **Randen.** Programm der Sektions-Ausflüge pro 1914.
 $5\frac{1}{2} \times 4$: pp. 3.
- **Tödl.** Geschichte der Sektion 1863–1913. Denkschrift sur Feier ihres
 fünfzigjährigen Bestehens. Verfasst von Rudolf Bühler Lehrer.
 $8\frac{1}{2} \times 6$: pp. 138: plates. Schwanden, Tschudy, 1913
- Siebenburg. Karpathenverein.** Die Alpenflora der Südkarpathen von Dr. Karl
 Ungar. Hermannstadt, Drotleff, 1913
 $8\frac{1}{2} \times 6\frac{1}{2}$: pp. 92: 22 col. plates.
- **Satzungen.** 1914
 9×6 : pp. 10.
- Sierra Club.** Notices of work, excursions, etc. 1914
- Ski Clubs:—**
- Akad. Alpen-Club Zürich.** Ski-Führer für die Silvretta- und Bernina-
 Gruppe. Chur u. St. Moritz, Ebner, 1913
 $6\frac{1}{2} \times 4$: 122: ill.
- Allgäuer Ski-Verband.** Allgäuer Ski-Touren. Kösel, Kempten, 1914
 $6 \times 8\frac{1}{2}$: 45 plates, maps and letterpress.
 The plates etc. are printed on thick paper, linen-backed folding
 in middle to allow of the portion for each route being used
 separate from the others.
- Alpine Ski Club.** Annual. A record of winter mountaineering by members
 of the Alpine Ski Club. Edited by Arnold Lunn. No. 6, 1913.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 50: plates. London, Marshall, 1914
 This contains:—
 C. T. Daukes, Ski-ing in the Himalaya.
 O. Goehrs, Le Mönch en hiver.
 O. D. Tauern, In the Northern Oetzal range.
 A. H. M. Lunn, Zermatt to Saas Fee.
- British Ski Association.** Ski-ing, vol. 1, nos. 1–2.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 60 each: plates. London, Marshall, December 1912, 1913
 Among the contents are the following:—
 No. 1. A. Lunn, Midsummer ski-ing.
 C. Collum, Ski-ing in Japan.
 C. Savage, Runs from Grimmelalp.
 F. Burton, Adventure on the Forno.
 No. 2. A. Lunn, The rope on snow-covered glaciers.
 E. C. Pery, Rucksacks and runs.
 E. C. Baggallay, To Plaine Morte Glacier and Wildstrübel.
- D.u.Oe.Ski-Verband.** Ski-Chronik 1913. Jahrbuch. V. Jahrg. Hsg. v. d.
 Skibrücke E. V. München unter Schriftleitung v. Dr. H. Schwarzweber
 $9 \times 6\frac{1}{2}$: pp. iv, 136: ill. München, 1913
 Among the articles are the following:—
 A. Mallwitz, Zur Wissensch. Erforschung d. Sports.
 A. Morich, Die Entwicklung d. Skibindungen.
 O. T. Tauern, Ueber Skilaufen am Seil u. Lawinen.
 W. Kröhl, Im Riesengebirge.
 E. Hofmann, Norwegische Erfahrungen.
 H. Eichler, Vom Wildhorn z. Wildstrübel.
 Literaturverzeichnis.
- Soc. Alpina delle Giulie.** Alpi Giulie, rassegna bimestrale. Anno xviii.
 $10 \times 6\frac{1}{2}$: pp. 110: ill. Trieste, 1913
 Among the articles are the following:—
 Chersich, Traversata dei Tauri.
 — I monti della Wochein.
 — Kern.

A. Taddio, Cima monte Toro, Cridolo e Monfalcone di Montanaia.

C. V. C., Ascensione al piccolo Draski.

— Salita invernale al Luschari.

Coretti, La salita del Pec.

P. Welponer, Salita del Sorapiss.

Soc. d. Alpinistes dauphinois. Revue des Alpes dauphinoises. Bulletin mensuel. 16me année. Grenoble, Vallier, 1913

9½ × 6 : pp. iv, 216 : ill.

This contains, among other articles :—

E. Morel-Couprie, Notes pour servir à l'histoire des merveilles du Dauphiné.

S. Chabert, Au refuge de l'Aigle.

R. Touchon, Les Sokhrats de Sidi el Aidi.

W. A. B. Coolidge, Entre Valloire et Briançonnais.

Soc. d. Touristes du Dauphiné. Annuaire no. 39. 1913

9½ × 6 : pp. 361 : plates.

Among the articles are the following :—

R. Fouilland, Le Pas de la Mort, des sources du Guiers-Vif au vallon de Marcieu.

Mlle P. Colet, L'arête sud de l'Aig. d'Olan.

M. Gignoux, Les Alpes Apuanes et le Gran Sasso.

E. Chabrand, Géographie minière des Alpes dauphinoises.

G. Gignoux, Routes de Corse.

New Books and New Editions.

Afanasiëff, R. Erster Anhang zu 100 Kaukasus-Gipfel.

6½ × 4½ : pp. 193-207.

München, Lindauer, 1914

This brings the information to the end of 1913.

Angerer, Hans. Bericht über die Beobachtungen am Pasterzengletscher im Sommer 1912. In Carinthia II, 103. Jahrg. Nr. 1-3. 1913

9 × 6 : pp. 55-58.

Austria. Travel-book of the Austrian railways. Vienna, Reisser, 1913

6½ × 4½ : ill.

1. Upper Austria and Salzburg.

3. Northern Tyrol, Vorarlberg and Liechtenstein.

8. Bohemia.

Bagley, Arthur L. Walks and scrambles in the Highlands.

7½ × 5 : pp. viii, 204 : plates.

London, Skeffington, 1914. 3/6 nett

This book describes walks and climbs in Skye and in other parts of the Highlands of Scotland. To anyone already knowing the district, the work will recall many pleasant memories of charming mountain country. Some of the chapters have already appeared in the Journals of the Cairngorm Club and of the Climbers' Club : and it is a good idea to reprint them. The plates too are good.

Ballie-Grohman, W. A. Im Winter auf den Gross-Glockner. In Sport u. Bild, no. 5. 1914

14 × 9½ : pp. 128-131 : ill.

This has been kindly presented by the author, who writes :—“It is my account of the first winter ascent made in the Austrian Alps (i.e. that of the Gross Glockner New Year's Day 1875) . . . it is really an elaboration in German of my article in the May 1875 number of the “Alpine Journal.”

Bairnsfather, Lt.-Col. P. R. Sport and nature in the Himalayas.

8½ × 6½ : pp. xiv, 137 : plates.

London, Harrison, 1914. 5/- nett

A short interesting volume on hunting ther, ibex, bear, markhor, gooral, etc. on the Himalayas.

Bancroft, J. Austen. Geology of the Coast and Islands between the Strait of Georgia and Queen Charlotte Sound, B.C. Canada Depart. of Mines, Memoir 23. Ottawa, 1913

9½ × 6½ : pp. viii, 152 : map, ill.

- Blanchard, Raoul.** La morphologie du Caucase, Merzbacher. In *La Géographie*, t. 27, no. 6. 15 juin 1913
 $11 \times 7\frac{1}{2}$: pp. 459-474.
- Braumüller, J.** Die Kenntnisse des Altertums von unserer Alpenwelt. In *Carinthia* II, 103. Jahrg. Nr. 1-3. 1913
 9×6 : pp. 113-117.
- Bruce, Lt.-Col. G. C.** Kulu and Lahoul. London, Arnold, 1914. 12/6 nett
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. xii, 307: map, plates.
- Burlingham, Frederick.** How to become an alpinist. London, Laurie, 1914. 6/- nett
 $7\frac{1}{2} \times 5$: plates: pp. xii, 218.
 Largely an account of ascents for the taking of cinematograph films, including the Matterhorn and Mont Blanc. There are chapters on equipment, accidents, playing with death, how to get killed.
- Busson, Paul.** Der Semmering und seine Berge. Ein Album der Semmering-landschaft von Gloggnitz bis Mürzzuschlag. Mit 140 schwarzen und 10 farbigen Abbildungen . . . von Fritz Benesch. Wien, Reisser, 1913. M. 8
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 86: plates.
 The plates are excellent, especially those in colour. The book is chiefly an album of views with a very short running description.
- Capps, Stephen R.** Glaciation of the Alaska Range. In *Journ. of Geol.* Chicago, vol. 20, no. 5. July-August 1912
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 415-437: ill.
- The Bonfield Region, Alaska. U.S. Geol. Survey Bull. 501.
 $9\frac{1}{2} \times 6$: pp. 64: maps, plates. Washington, Gov. Print. Office, 1912
- Dallimore, W.** Visit to the forests of Switzerland. In *Bulletin*, Royal Botanic Gardens, Kew, no. 7. 1913
 $9\frac{1}{2} \times 6$: pp. 269-278.
- Falke, Konrad.** Wengen. A landscape in words. Rendered into English by T. B. Donovan. Zurich and Leipzig, Rascher, 1913
 $8 \times 5\frac{1}{2}$: pp. iv, 79: plates.
- Flemwell, G.** Beautiful Switzerland. Lausanne and its environs. Painted and Described by G. Flemwell. London, etc., Blackie, 1914. 2/-
 $9 \times 6\frac{1}{2}$: pp. 64: 12 col. plates.
- Villars and its environs. 1914. 2/-
 $9 \times 6\frac{1}{2}$: pp. 64: 12 col. plates.
 The two previous volumes of this series, 'Lucerne' and 'Chamonix,' have already been noticed here. The two new volumes are as delightfully illustrated as were the others. The two volumes cost only 2s. each.
- Förster, Dr. E. Th.** Die touristische Erschliessung des Kilima-Ndscharo In *Alpine Sondernummer* Münch. N. Nachr. 1913
- Freshfield, D. W.** Hannibal once more. London, Arnold, 1914. 5/-
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. vi, 120: maps, plates.
- Geographical Soc. of Philadelphia.** Bulletin, vol. xi. 1913
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 250: plates, etc.
- Goethe.** Mit Goethe durch die Schweiz. Ein Wanderbuch. Mit Handzeichnungen Goethes und noch nicht veröffentlichten Aquarellen und Kupferstichen aus der Kunstsammlung des Museums in Basel. Hsg. und eingeleitet von Eugenie Benisch-Darlang. Wien, Gerlach u. Wiedling, 1913. Kr. 5
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. xxiv, 114: 37 plates.
 This contains all that Goethe wrote on his three journeys in Switzerland. The value of this special edition lies in the interesting series of plates from old prints and three from Goethe's own drawings of scenery.
- Graber, Hans.** Schweizer Maler. Königstein i. T. und Leipzig, Langewiesche [1913]. M. 1.80
 $10\frac{1}{2} \times 7\frac{1}{2}$: pp. vii, v: 90 plates.
 Plates of modern pictures of Swiss scenery and people.
- Handl, Leo.** Ski-Führer durch die Samnaun-Gruppe. (München, Graph. Kunstanstalt) 1913/14
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 44: map, ill.

- Hefty, Julius Andor.** Skiführer für den Csorbersee. Kesmark, Sauter, 1914
8 × 5: pp. 18: map.
- Hegi, Gustav.** Aus den Schweizerlanden. Natur-historisch-geographische
Plaudereien. Zürich, Orell Füssli [1914]
8 × 5½: pp. 128: plates.
- Heimatschutz.** Jahresbericht im Jahre 1912.
9 × 6½: pp. 7.
- Hess, Adolfo.** Saggi sulla psicologia dell'Alpinista. Raccolta di autobiografie
psicologiche di alpinisti viventi. Torino, Lattes, 1914. L. 3
7½ × 5: pp. xii, 612: portraits.
- This is a collection of short notes by 77 modern climbers giving expression to the pleasures which they get from climbing. It is intended to assist some future writer on the philosophy of this form of human endeavour. There are contributions from F. Benesch, C. Blodig, G. Bobba, A. P. Coleman, E. T. Compton, H. Dübi, C. E. Fay, D. W. Freshfield, Abbé Henry, H. Pfannl, W. R. Rickmers, T. v. Wundt, and others. These are prefaced by an article on the psychology of climbing by E. Steinitzer and on psychopathology and climbing by O. Schuster. An interesting volume on a difficult subject.
- Hug, Mrs. Lina, and Stead, Richard.** Switzerland. (The story of the nations series.) Fourth impression. London, Unwin [1914]. 5/-
7½ × 5½: pp. xxiii, 430: maps, plates.
- Keen, Dora.** First up Mt. Blackburn, Alaska. In *The World's Work*, New York, vol. 27, no. 1. November 1913
10 × 6½: pp. 80-101: ill.
- Laycock, John.** Some shorter climbs (in Derbyshire and elsewhere).
6 × 4½: pp. ix, 116: plates. Manchester, Refuge Print. Depart. 1913
Easy and difficult climbs, mostly on gritstone. Very well illustrated.
- Liébana y los Picos de Europa.** Santander, Est. tip. "La Atalaya," 1913
9½ × 6½: pp. 207: map, ill.
- A guide-book to the district in which lie the Picos de Europa, with illustrations of the mountains. A local alpine club has been started; see Picos de Europa under Club Publications.
- Meany, Edmond S.** The story of three Olympic peaks. In *Washington Histor. Quarterly*, vol. iv, no. 3. July 1913
10 × 6½: pp. 182-186.
- Chiefly genealogical notes about G. Davidson, author of 'The Pacific Coast Pilot.'
- MoMt, Fred. H.** Headwater regions of Gulkana and Susitna Rivers, Alaska. U.S. Geol. Survey, Bull. 498. Washington, Gov. Print. Office, 1912
9½ × 5½: pp. 82: maps, plates.
- Monti, V.** Sull'azione refrigeratrice dei ghiacciai. In *RC Accad. dei Lincei*, Sc. fis. vol. 22, ser. 5a. 18 maggio 1913
11 × 7½: pp. 691-696.
- This has been kindly presented by the author. This paper describes the difficulties of separating the effects on temperature of a glacier from the effects of other conditions in a district. Taking Saussure's figures and Vallot's, the author shows that the cooling effect of a glacier is very slight even a few miles off.
- Mountaineering.** Articles in the *Cape Times* from July 1913-April 1914.
These articles on mountaineering at the Cape, in India, Canada and England have been most kindly collected and presented to the library by Mr. G. F. Travers-Jackson and by Mr. West.
- Neve, Ernest F.** Beyond the Pir Panjal. Life and missionary enterprise in Kashmir. London, Church Missionary Soc. 1914. 3/6
8½ × 5½: pp. viii, 178: plates.
- This includes descriptions of the vale of Kashmir, Srinagar, Kashmiri Tibet, and the Upper Indus valley and several fine mountain views. This is the second, popular, edition.

New Zealand. Articles on and views of mountains.

18½ × 12½.

Otago Witness Christmas No., 1913

Oldham, R. D. The discussion on the origin of the Himalayas. In *Geol. Mag.* London, dec. v, vol. x, no. xii. December 1913

8½ × 5½: pp. 532-536.

Oppenheim, Edwin. The 'Reverberate Hills.' London, Constable, 1914. 3/6

7½ × 5: pp. 56.

A volume of verse.

Øyen, P. A. Variationer ved norske bræer 1910-1911. In *Videnskapssel.* Forh. 1913, no. 3. Kristiania, Dybwad, 1913

9½ × 6½: pp. 14.

— 1911-1912. *Videns. Forh.* 1913, no. 4. 1913

9½ × 6½: pp. 14.

— Bræemaal i Norge 1910. In *Nyt Mag. f. Naturv. B.* 51. 1913

9½ × 6: pp. 249-268: plates.

Peege, Emil u. Noggler, Josef. Jahrbuch des Wintersportes für 1913/14.

7½ × 4½: pp. viii, 256: ill. Wien u. Leipzig, Fromme, 1914. Kr. 3.60

This contains, among other items:—

Articles on ski-ing in the various countries of Europe, winter sport literature, lists of wintersports clubs in Europe, practical hints etc.

This useful volume is now in its fourth year of issue.

Perret, Robert. Topographie et Physiographie du Fer-à-Cheval (Alpes calcaires du Faucigny). Thèse complémentaire pour le Doctorat ès Lettres, Paris.

9 × 5½: pp. 61: map, plates.

Paris, Barrère, 1913

An excellent monograph on history, topography, geology, bibliography: excellent plates. The work has been most kindly presented by the author.

Placidus a Spescha. Pater Placidus a Spescha sein Leben und seine Schriften.

Unter der Aufsicht der Naturforschenden Gesellschaft Graubündens, der historisch-antiquarischen Gesellschaft Graubündens und der Sektion Rätia des S.A.C. Mit Unterstützung von Behörden und Vereinen hsg von Prof. Dr. Fried. Pieth und Prof. Dr. P. Karl Hager. Mit einem Anhang von P. Maurus Carnot. Bümpliz-Bern, Benteli, 1913. M. 18

10½ × 7½: pp. cxiii, 515: plates.

Spescha lived 1752 to 1833. For the greater part of his life he was at Disentis as a monk. He was one of the earliest climbers: and in this volume are his accounts, printed from MS., of his ascents of the following:—Piz Cristallina, Muraun, Scopi, Piz d. Ufiern, Badus, Valrhein, Piz Cavel, Piz Aul, Piz Scherboden, Terri, Güferhorn, Weissenstein, Greina, Oberalpstock, Crispalten, Piz Gliems, Kistenstöckli, Stocgron, Piz Urlaun. There are also printed from MS. the following of interest here:—

Reise über die Oberalp—Grimsel—Susten—Göscheneralp, 1811.

Reise vom Tavetschertal über den Krüzlipass nach Uri, Schwyz und Einsiedeln, 1812.

Anleitung zur Unternehmung von Bergreisen.

Das Klima der Alpen.

Lawinenkatastrophen und Naturchroniken.

The volume also contains a life of Spescha by F. Pieth: an account of him as geographer and alpinist by K. Hager: Spescha's Geschichte der Abtei Disentis: and other items.

The volume is finely illustrated from photographs, etc.

Reclus, Onésime. Atlas de la plus grande France. 10me livr. Jura, Isère.

14½ × 10½: pp. 95-6: two maps.

Paris, Attinger, 1914

Reid, H. F. Variations of glaciers. xviii. Reprinted from *Journ. Geology*, Chicago, vol. 21, no. 8. Nov.-Dec. 1913

9½ × 6½: pp. 748-753.

Rey, Guldo. Alpinismo acrobatico.

Torino, Lattes, 1914. L. 6

9½ × 5½: pp. 314: ill.

- Ross, Malcolm.** A climber in New Zealand.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. xx, 316: plates. London, Arnold, 1914. 15/- nett
- Saquet, A.** A pied . . . dans les Alpes. In Rev. mens. T. C. de France.
 24^e année. Février 1914
 $10\frac{1}{2} \times 8\frac{1}{2}$: pp. 79-81.
- Sievers, Wilhelm.** Die Cordillerenstaaten. Sammlung Göschen 652-3.
 Berlin u. Leipzig, Göschen, 1913. 1/6
 2 vols: 6 x 4: pp. 148: 123: maps, plates.
 The first volume contains Bolivia and Peru: and the second Ecuador, Colombia and Venezuela. Further volumes will include Chile and the Argentine. The author has personal knowledge of the greater part of what he treats of. The geography of the districts and descriptions of the scenery, people etc. are clearly given. Among the plates are various mountain views including Chimborazo, Ilimani, Cotopaxi.
- Staff, H. v.** Zur Morphogenie der Präglaziallandschaft in den Westschweizer Alpen. In Zeits. d. Deutsch. Geol. Ges. Abh. 64. Bd. Hft. I. u. II.
 $9\frac{1}{2} \times 6$: pp. 80: plates. Stuttgart, Enke, Januar bis Juni 1912
- Terschak, Emil.** Die Photographie im Hochgebirge. 3. Aufl.
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 46: plates. Berlin, Union deutsch. Verlagsges. [1913]
- Tessier, L. F.** La végétation des Alpes maritimes. In La Géographie, t. 27,
 no. 6. 15 août 1913
 $11 \times 7\frac{1}{2}$: pp. 119-125.
- Trautwein, Th.** Tirol und Vorarlberg, Bayr. Hochland, Allgäu, Salzburg, Ober- und Nieder-Oesterreich, Steiermark, Kärnten und Krain. Wegweiser für Reisende. Bearbeitet von Anton Edlinger und Heinrich Hess.
 18. Aufl. Wien und Leipzig, Edlinger, 1913. K. 10.80
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. xxxii, 841: maps.
 This book has as regards the portions dealing with mountaineering been compiled largely from notes supplied by members of the D.u.Oe. A.-V. sections. The work is very fully supplied with maps. It is bound in eight separate parts, a very convenient arrangement. There is an addition required to make this arrangement perfect, which no guide book seems to have adopted yet, that of having an index of names with each section.
- Trautz, Max.** Die Kverkfjöll und die Kverkhukararar im Hochland von Island. In Zeits. Ges. f. Erdk. Berlin, no. 3. 1914
 $10 \times 6\frac{1}{2}$: pp. 169-199: plates.
- Treacher, Malcolm S.** In the ice-world of the Dauphiny. In Wide World Mag. London, vol. 33, no. 193. April 1914
 $9\frac{1}{2} \times 7\frac{1}{2}$: pp. 47-59: ill.
- Turner, S.** Scaling Mount Aspiring. In Otago Witness, N.Z., Christmas No. 1913
 $18\frac{1}{2} \times 12\frac{1}{2}$: pp. 3: ill.
- Vaillat, Léandre.** La Savoie. Chambéry, la Maurienne, la Tarentaise. Dessins de André Jacques. Chambéry, Dardel: Genève, Atar, 1913. Fr. 18
 13×10 : pp. 121: plates.
 A very finely illustrated work with plates of scenery, architecture, and of people, made from sketches: with an interesting descriptive text to accompany the plates, giving the history and customs of the people and notes on the scenery.
- Wehrli, Leo.** Die Schweiz. 4. Aufl. Land und Leute Monographien, 5.
 Bielefeld u. Leipzig, Velhagen und Klasing, 1913. M. 4
 $10 \times 6\frac{1}{2}$: pp. iv, 222: plates, map.
 A good general description of Switzerland and the Chamonix Valley, very well and fully illustrated. Chaps. 1-6, are:—Introduction, Geology, Geography mountains and rivers, History, Climate plants and animals, Inhabitants. The remaining eleven chapters are each devoted to the description of a district.
- Willis, Bailey.** Report on an investigation of the geological structure of the Alps. Smiths. Miscell. Collections, vol. 56, nr. 31.
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 13. Washington, Smiths. Instit. February 7, 1912

Der Winter. Illustrierte Zeitschrift für den Wintersport. Amtl. Zeitschrift d. deutschen u. d. österreichischen Skiverbandes u. a. Vereine. viii. Jahrg. München u. Wien, Schmidkunz, 1913-14

9 × 6½: pp. 526: ill.

A very useful periodical for all interested in winter sports. It gives full details of Clubs and Sections and their meetings: also many articles on various expeditions.

Among the articles are the following:—

L. Husler, Der Dauerlauf, Ratschläge u. Winke.

C. J. Luther, Die Form des Ski.

O. Sehrig, Skitouren im Fotschertal.

F. Scholz, Das Riesengebirge.

C. J. Luther, Vom Bayrischen Hochland.

A. Schupp, Neue alpine Unterkunftsstätten für Skiläufer.

W. Norman-Neruda, Eine Skitour in den Dolomiten.

Neue Skihütten.

E. Hoferer, Eine Frühjahrsbesteigung der Jungfrau.

Wollaston, A. F. R. An expedition to Dutch New Guinea. In *Geograph. Journ.* London, vol. 43, no. 3, pp. 268-273: ill. March 1914

Workman, W. H. Physical characteristics of the Siachen basin and glacier-system. In *Geogr. Journ.* London, vol. 43, no. 3, pp. 273-293: ill. March 1913

Zeitschrift der Gesellschaft für Erdkunde Berlin. 1913

10 × 7: pp. xix, 824.

Among the articles is the following:—

H. Lautensach, Ueber den heutigen Stand unserer Kenntnis vom präglazialen Aussehen der Alpen.

Zeller, R. Ein Rundgang durch das Schweizerische Alpine Museum in Bern. 3. Aufl. 1913

8 × 5½: pp. 36: ill.

Older Books.

Baillie-Grohman, W. A. Hunting the Rocky Mountain goat. In *Century Ill. Month. Mag.* New York, vol. 29, no. 2. December 1884

10 × 6½: pp. 193-203: ill.

Broeck, Ernest Vanden. Notes sur une excursion scientifique en Suisse—août-septembre 1875—rapport présenté à la Soc. malacologique de Belgique. 10 × 6½: pp. 43. Bruxelles, Nys, 1876

de Buch, Léopold. Voyage en Norvège et en Laponie, fait dans les années 1806, 1807 et 1808. Paris, Gide, 1816

2 vols: 7½ × 4½.

(Cantù, C.) Guida al Lago di Como ed alle Strade di Stelvio e Spluga. 6 × 3½: pp. 136: map. Como, Osintelli, 1847

Chamonix. Souvenir de Chamouni. Genève, Briquet et Dubois [?c. 1840] 5 × 7: 24 lithographs.

Colladon, J. P. Notice sur le village de Saint-Gervais. Extr. *Bibl. Univers.* 8½ × 5: pp. 13. Janvier 1835

Desbarolles, Adolphe. Un mois de voyage en Suisse pour 200 francs . . . donnant tous les renseignements nécessaires au voyageur en Suisse. 7½ × 4½: pp. viii, 240. Paris, Bohaire, 1840

Desgodins, Abbé. La mission du Thibet. De 1855 à 1870. Verdun, Laurent, 1872

Emonet, Jules. Martigny et ses environs. Genève, Haissly, 1903

7½ × 4½: pp. 133.

Felerabend, August. Die Schweizerische Alpenwelt. Für junge und alte Freunde der Alpen dargestellt. Bielefeld u. Leipzig, Velhagen and Klasing, 1873

8½ × 5½: pp. vii, 347: plates.

Fenoll, Abbé Ferdinand. Ça et là. Souvenirs valdotains. Première partie. Aoste, Duc, 1883

7 × 5: pp. 252.

- Franseini, Stefano.** *Statistica della Svizzera.* Lugano, Ruggia, 1827
8 $\frac{1}{2}$ × 5 $\frac{1}{2}$: pp. xx, 482: map.
- Grant, G. M.** *New Zealand.* In *Harper's New Month. Mag.* vol. 83, no. 495.
9 $\frac{1}{2}$ × 6 $\frac{1}{2}$: pp. 327-344: ill. August 1891
- Grattan, T. C.** *Alpine sketches: Mont Blanc and Montanvert.* In *Colburn's New Month. Mag.* vol. 51, no. 202. November 1837
8 $\frac{1}{2}$ × 5 $\frac{1}{2}$: pp. 333-337.
- Hallam, Julia Clark.** *The Story of a European Tour.* Second edition.
7 $\frac{1}{2}$ × 5 $\frac{1}{2}$: pp. viii, 330: ill. Sioux City, Iowa, Darling, 1901
- Housman, John.** *A descriptive tour, and guide to the lakes, caves, and mountains, and other natural curiosities, in Cumberland, Westmoreland, Lancashire, . . .* Second edition. Carlisle, Jollie: London, Law, 1802
8 $\frac{1}{2}$ × 5: pp. vii, 227: plates.
- Howells, W. O.** *A little swiss sojourn.* In *Harper's Month. Mag.* London, vol. 76, no. 453. February 1888
9 $\frac{1}{2}$ × 6 $\frac{1}{2}$: pp. 452-467: ill.
- Ingersoll, Ernest.** *Silver San Juan.* In *Harper's Monthly Mag.* vol. 64, no. 385.
9 $\frac{1}{2}$ × 6 $\frac{1}{2}$: pp. 679-704: ill. April 1882
- Jackson, F. W.** *Mountaineering in the Lake District.* Reprinted from *The Friends' Quarterly Examiner*, London. 1897
8 $\frac{1}{2}$ × 5 $\frac{1}{2}$: pp. 313-328.
- Kindly presented by E. F. Scott, Esq., Rucksack Club.
- James, T. E.** *The disappearance of Mount Mazama.* In *Pearson's Mag.* London, vol. xi, no. 11. February 1901
9 $\frac{1}{2}$ × 6 $\frac{1}{2}$: pp. 153-7: ill.
- Joanne, A.** *De Paris à Genève et à Chamonix par Maçon et par Lyon.* Itinéraire descriptif et historique. Paris, Hachette [1858]
7 $\frac{1}{2}$ × 4 $\frac{1}{2}$: pp. iv, 352: maps.
- *Itinéraire descriptif et historique de la Savoie.* Paris, Hachette [1860]
7 $\frac{1}{2}$ × 4 $\frac{1}{2}$: pp. xix, 279, maps, etc.
- Joanne, A. et P. Suisse.** *Guide diamant.* 4e édition. Paris, Hachette, 1875
5 $\frac{1}{2}$ × 3 $\frac{1}{2}$: pp. xxxvi, 498: maps.
- Joanne, P. Suisse.** *Guide diamant.* Paris, Hachette, 1885
5 $\frac{1}{2}$ × 3 $\frac{1}{2}$: pp. xxxiv, 478: maps.
- Jowett, Benjamin.** *College sermons.* Second edition. In memoriam—Lewis Nettleship. London, Murray, 1895
7 $\frac{1}{2}$ × 5: pp. 264-276.
- Koechlin-Schwartz, A.** *Un touriste au Caucase. Volga—Caspienne—Caucase.* 7 × 4 $\frac{1}{2}$: pp. 352: map. Paris, Hetzel [c. 1880]
- Lubbock, Sir John.** *Beauty in nature, iv. Mountains.* In *Strand Mag.* London. 9 $\frac{1}{2}$ × 6 $\frac{1}{2}$: pp. 504-10: ill. May 1892
- Maige-Lefournier, M.** *Le ski, le soleil et la neige. Le Mont-Revard.* 9 × 6 $\frac{1}{2}$: pp. 71. Chambéry, Dardel, 1912
- Manning, S.** *Swiss pictures drawn with pen and pencil.* New edition revised and partly re-written. With several additional illustrations by Edward Whymper and a map. London, Religious Tract Soc. 1891
11 × 7 $\frac{1}{2}$: pp. 210: map, ill.
- Marro, Casimiro.** *L'Alta Valle del Tanaro. Guida illustrata.* 8 × 5 $\frac{1}{2}$: pp. 190: ill. Torino, Fiandesio, 1910
- Mendenhall, Walter C.** *Geology of the Central Copper river Region, Alaska.* U.S. Geol. Survey Prof. Paper, No. 41. Washington, Gov. Print. Office, 1905
11 $\frac{1}{2}$ × 9: pp. 133: maps, plates.
- Muir, John.** *In the heart of the Californian Alps.* In *Scribner's Month. ill. mag.* New York. vol. 20, no. 3. July 1880
9 $\frac{1}{2}$ × 6 $\frac{1}{2}$: pp. 345-352.
- Penck, Albrecht und Brückner, Eduard.** *Die Alpen im Eiszeitalter.* Von der Sektion Breslau d. D.u.Oe.A.-V. gekrönte Preisschrift. Leipzig, Tauchnitz, 1909. £2 15/-
3 vols, 10 $\frac{1}{2}$ × 7 $\frac{1}{2}$: pp. xvii, 1198: maps, plates.

- A Picturesque Tour** through France, Switzerland, . . . in the year 1816.
 $8\frac{1}{2} \times 5$: pp. xv, 379: maps. London, Mawman, 1817
- Schreiber, A.** Manuel du voyageur par la Suisse, le Wurtemberg, la Bavière, le Tyrol, le pays de Salzbourg et au Lac de Constance.
 $5\frac{1}{2} \times 3\frac{1}{2}$: pp. vi, 258. Heidelberg, etc. Engelmann [c. 1835]
- Sheldon, Charles.** The wilderness of the Upper Yukon. A hunter's explorations for wild sheep in sub-arctic mountains. London, Unwin, 1911
 9×6 : pp. xxi, 354: plates.
- Simpion.** Descrizione della strada del Sempione fatta costruire dal governo italiano. [c. 1800]
 $11\frac{1}{2} \times 9$: pp. ix.
- Smith, James Edward.** A sketch of a tour on the Continent. Second edition, with additions and corrections. London, Longmans, 1807
 $9 \times 5\frac{1}{2}$: 3 vols.
- Stanton, Robert B.** Through the Grand Canon of the Colorado. In Scribner's Mag. New York, vol. 8, no. 5. November 1890
 10×7 : pp. 591-613: ill.
- Tumminello, Girolamo.** Le meraviglie della Svizzera descritte.
 $7 \times 4\frac{1}{2}$: pp. 148. Palermo, Gaudiano, 1876
- The Wonders and Beauties of creation.** As portrayed by Humboldt . . . and other great writers. London and Edinburgh, Gall and Inglis (c. 1870)
 $7\frac{1}{2} \times 5\frac{1}{2}$: pp. xiv, 302: ill.
 Contains extracts from Saussure, Whymper, Ramond, etc.

Item.

- Compton, E. H.** Der Hintersee. Farbenprächtiger Aquarell-Druck.
 $7 \times 9\frac{1}{2}$ Berchtesgaden, Richter, 1914. M. 1
- Der Obersee. Einfarbige Folio-Heliogravüre.
 $6\frac{1}{2} \times 8\frac{1}{2}$. Berchtesgaden, Richter, 1914. M. 1.50

Subject Index of Club Publications and New Books.

- | | |
|--|---|
| Adamello : C. A. I. Rivista. | Botany : W. Dallimore, Forests of Switzerland. |
| Africa : <i>Mountain Club</i> . | Brèche Joseph Ture : C. A. F. Montagne. |
| — Mountaineering. | Canada : <i>Cairngorm Club</i> . |
| Aig. de la Za : C. A. F. Vosges. | — Mazamas. |
| Aig. d. Glaciers : C. A. I. Rivista. | — <i>Rucksack Club</i> . |
| Aig. d'Olan : Soc. d. Tour. Dauphiné. | — J. A. Bancroft, Geology of Coast, B.C. |
| Aig. Javelle : C. A. F. Vosges. | Canigou : C. A. F. Pyr. Centrales. |
| Aigs de Rieutort : C. A. F. Montagne. | Carso : C. A. fumano. |
| Alaska : S. R. Capps. | Caucasus : D. u. Oe. A.-V. Mitt. |
| — D. Keen, Mt. Blackburn. | — Oe. A.-C. |
| — F. H. Moffit. | — R. Afanasieff. |
| Alcohol : C. A. I. Rivista. | — R. Blanchard. |
| Alm : D. u. Oe. A.-V. Mitt. | Col d. Cristaux : C. A. F. Montagne. |
| Alps : J. Braumüller, Kenntniss d. Altertums. | Col Maudit : C. A. F. Pyr. Centrales. |
| America, South : W. Sievers. | Corno di Campo : Akad. A. C. Zürich. |
| Amkogel : C. A. fumano. | Corsica : Soc. Tour. Dauphiné. |
| Aquan Alps : C. A. I. Rivista. | Crête d. Tempêtes : C. A. F. Montagne. |
| Argentera : C. A. F. Montagne. | Dachstein : Oe. A.-C. |
| — C. A. I. Rivista. | Dauphiné : Oe. A.-C. |
| Badet : C. A. F. Pyr. Centrales. | — <i>Rucksack Club</i> . |
| Bec du Corbeau : C. A. F. Pyr. Centrales. | — Soc. Alp. dauph. |
| Bietschorn : Akad. A. C. Bern. | — M. S. Treacher. |
| Bifertenstock : Akad. A. C. Zürich. | |
| Blindenhorn : Oe. A. C. | |
| Botany : Siebenb. Karpathenv. | |

- Dent-Blanche : *C. A. F. Vosges.*
 Dent de Morcles : *Akad. A. C. Bern.*
 Dent de Velsivl : *C. A. F. Vosges.*
 — *C. A. I. Rivista.*
 Dolomites : *C. A. F. Montagne.*
 — *Oe. A.-C.*
 Draski : *Soc. Alp. d. Giulie.*
 Eastern Alps : *D. u. Oe. A.-V. Mitt.*
 — *Oe. A.-C.*
 England : J. Laycock, Shorter climbs.
 Fer-à-Cheval : R. Perret.
 Gavarrie : *C. A. F. Montagne.*
 Gessäuse : *D. u. Oe. A.-V. Mitt.*
 Glaciers : H. Angerer.
 — *C. A. I. Rivista.*
 — V. Monti.
 — P. A. Øyen.
 Glen Clova : *Cairngorm Club.*
 Gr. Casse : *O. A. I. Rivista.*
 Gr. Muveran : *Akad. A. C. Bern.*
 Gr. Paradiso : *O. A. I. Rivista.*
 Gr. Windgälle : *Akad. A. C. Zürich.*
 Grintovec : *C. A. fumano.*
 Gross-Glockner : W. A. Baillie-Grohman.
 Guide Books : L. Handl, Samnaun-Gruppe.
 — J. A. Hefty, Csorbersee.
 — Ski-Führer f. d. Silvretta.
 — T. Trautwein, Tirol.
 Hannibal : D. W. Freshfield.
 Himalayas : *Alpine Ski Club Annual.*
 — P. R. Bairnsfather.
 — C. G. Bruce, Kulu and Lahoul.
 — E. F. Neve, Pir Panjal.
 — R. D. Oldham, Origin.
 Iceland : M. Trautz.
 Japan : *Brit. Ski Assoc.*
 Jof Fuart : *C. A. fumano.*
 Jungfrau : Der Winter.
 Karwendel : *Oe. A.-C.*
 Killmandjaro : *D. u. Oe. A.-V.*
 — *Hannover.*
 — E. T. Förster.
 Kl. Zinne : *C. A. fumano.*
 Lake District : *Fell and Rock.*
 — *Rucksack Club.*
 Langkofel : *D. u. Oe. A.-V. Mitt.*
 Matterhorn : *C. A. fumano.*
 Meldje : *D. u. Oe. A.-V. Mitt.*
 Mittagkogel : *C. A. fumano.*
 Mönch : *Alpine Ski Club Annual.*
 Mont Vélán : *O. A. I. Rivista.*
 M. Olivia : *C. A. I. Rivista.*
 Mt. Adams : *Mazamas.*
 Mt. Hood : *Mazamas.*
 Mt. Robson : *Mazamas.*
 Mountaineering : F. Burlingham.
 — G. Hess, Psicologia.
 — G. Rey, Alpinismo acrobatico.
 New Guinea : A. F. R. Wollaston.
 New Zealand : M. Ross.
 Norway : *D. u. Oe. Ski-Verband.*
 Oberland : *Rucksack Club.*
 Obruc : *C. A. fumano.*
 Oetzal : *Alpine Ski Club Annual.*
 Pala : *Oe. A.-C.*
 Pec : *Soc. Alp. d. Giulie.*
 Pfaffenturm : *Akad. A. C. Zürich.*
 Phocide : *C. A. F. Sud-Ouest.*
 Photography : E. Terschak.
 Pic de Céciré : *C. A. F. Pyr. Centrales.*
 Picos de Europa : Liébana.
 Pictures : H. Graber, Schweizer Maler.
 — G. Flemwell.
 Pieta di Lazzun : *C. A. I. Rivista.*
 P. del'Omo : *C. A. I. Rivista.*
 Piz Platun : *Akad. A. C. Zürich.*
 Piz Tambo : *C. A. I. Rivista.*
 Pizzo Coro : *Akad. A. V. Berlin.*
 Planik : *C. A. fumano.*
 Poetry : E. Oppenheim.
 Poncione di Rovino : *Akad. A. C. Zürich.*
 Punta Anna : *C. A. I. Rivista.*
 Punta Como : *C. A. I. Rivista.*
 Punta d'Aurona : *C. A. I. Rivista.*
 Punta d. Plattas : *Akad. A. C. Zürich.*
 Punta Innominata : *C. A. I. Rivista.*
 Pyrenees : *C. A. F. Montagne.*
 — *C. A. F. Pyr. Centrales.*
 — *Fell and Rock.*
 Riesengebirge : *D. u. Oe. Ski-Verband.*
 Risnjak : *C. A. fumano.*
 Rjovina : *Akad. A. V. Berlin.*
 Rochebrun : *C. A. F. Sud-Ouest.*
 — *C. A. I. Rivista.*
 Rope : *Brit. Ski Assoc.*
 — *D. u. Oe. Ski-Verband.*
 — *Rucksack Club.*
 Saashörner : *Akad. A. C. Zürich.*
 Sanntal : *C. A. F. Montagne.*
 Sasso Madulmo : *C. A. I. Rivista.*
 Savoie : L. Vaillat.
 Scotland : A. L. Bagley, Walks and scrambles.
 Sellaioch : *D. u. Oe. A.-V. Mitt.*
 Semmering : P. Busson.
 Sirtenturm : *Akad. A. C. Zürich.*
 Ski : Der Winter.
 Skye : *Cairngorm Club.*
 — *Rucksack Club.*
 Sorapiss : *Soc. Alp. d. Giulie.*
 Spain : *Pénalara.*
 — *Picos de Europa.*
 Stecknadelhorn : *Akad. A. C. Zürich.*
 Switzerland : G. Hegi.
 — L. Wehrli.

Tacoma : *Oe. A.-C.*
 Tällhorn : *Akad. A. C. Zürich.*
 Tauri : *Soc. Alp. d. Giulie.*
 Torri di Veglia : *C. A. I. Rivista.*
 Triglav : *C. A. fiumano.*
 Tuxer Vorbergen : *D. u. Oe. A.-V.*
 Mitt.

Wengen : *K. Falke.*
 Winklerturm : *C. A. I. Rivista.*
 — *Fell and Rock.*
 Wintersport : *E. Pegge.*
 — *Der Winter.*
 Wochein : *Soc. Alp. d. Giulie.*

THE ACCIDENT ON MT. COOK. DEATH OF MR. S. L. KING AND HIS GUIDES THOMSON AND RICHMOND.

THE following narrative of this very unfortunate occurrence is by Mr. James R. Dennistoun, A.C., of Peel Forest, and is reprinted from the *Christchurch Press* of February 28.

'Mr. King arrived in New Zealand on January 15, his intention being to go first to Milford Sound, to climb Mitre Peak. On finding that my brother and I had arranged on the Rangitata expedition, he decided to join us, and came straight through to Peel Forest. The story of our finding a new traverse of the Rangitata to the Hermitage, *via* St. Winifred's, Godley, Glasson, Murchison and Tasman glaciers, has already been told. Richmond, the guide, was a member of the party. We started on January 21, and had very bad weather up the Rangitata, but perfect conditions during the two days occupied in getting through to Malte Brun Hut. Mr. King was much impressed with the extent of the New Zealand glaciers, and incidentally disgusted with the amount of moraine on some of them. When we reached the Hermitage my brother, Lieutenant Dennistoun, had to leave to rejoin his ship at Auckland. I also had to go back to Peel Forest on business, but hoped to get back to the Hermitage and rejoin King for the ascent of Mt. Cook.

'In the meantime King was doing some great work. Accompanied by Guide Thomson, he climbed Mt. Darwin, and made an attempt at Elie de Beaumont, but was unable to get across the bergschrund. He therefore climbed Hochstetter Dome instead and also did the Aiguille route, and the Malte Brun. He and Thomson made a fine combination, and worked splendidly together. Accompanied by Thomson and Peter Graham, King attempted the ascent of Mt. Sefton, but after reaching Tuckett's Col they were forced to return, owing to the very high wind and bad weather. In the meantime, thinking that I had no chance of getting back, I sent a telegram to King, telling him not to wait for me any longer to do the Mt. Cook climb.

'On Friday last [February 20], however, I had arranged my business, so I telephoned through to the Hermitage to inform him that I would arrive on Saturday. King had left only an hour or two before for the Ball Hut. I asked Peter Graham to send a

porter after him to ask him to wait a day, but Graham could not do so, because King, who was climbing from the Tasman side, hoped to meet on the summit of Mt. Cook Mr. Frind, who, accompanied by Conrad Kain and William Brass, was ascending from the Hooker side. I therefore decided to go through at once, hoping to catch up with King should the weather hold him up on the Saturday. Leaving Peel Forest at 6 A.M. that day, I motored to Fairlie, and joined the car for the Hermitage, where I arrived at 5.30 P.M. Horses were waiting, and I started at once for the Ball Hut, in company with Mr. Turner, with whom I had agreed to climb Mt. Cook on Monday. We reached the Ball Hut at 11 P.M., and started at 5 o'clock on Sunday morning for Green's Bivouac, on the Haast ridge. We arrived there just after midday, and found that King had left everything in order, as though he did not intend to return that way, but to cross over into the Hooker. Just after arriving at the Bivouac we saw King's party cutting their way up the final ice slope to the summit. In the afternoon we kicked steps in the snow up on to the Glacier Dome, and traced out the steps of King's party, so as to be certain of the route across the plateau in the morning. At seven o'clock that evening we turned in at the Bivouac, feeling quite certain that King had crossed over the summit, and had gone down into the Hooker.

At one o'clock on Monday morning we got up and were having breakfast, when Mr. Frind, with Conrad Kain and William Brass, arrived, having had a very hard day. They had ascended from the Hooker, and reached the summit about 5.30 P.M., after a very difficult and trying climb. On their way down they had followed King's steps, returning to the Tasman as far as the Linda Glacier. It was then dark, and the Frind party lost the steps where they went into the big avalanche. We were surprised when Frind turned up without having seen King, but we surmised that the latter must have got down early instead of calling at the Bivouac, and had gone straight on to the Ball Hut. We felt no anxiety, and knowing what a strong and able party they were—one of the strongest, indeed, that has climbed in New Zealand—we could not conceive that any mishap had occurred.

Turner and I started off at 2.30 A.M. on Monday, Frind and his party turning in. In spite of the very high wind which blew out our lanterns, we reached the head of the Linda Glacier, over the huge avalanche, at 9.30 A.M. Meanwhile the weather was rapidly getting worse, and the wind had become so strong that after waiting half an hour we decided that it was quite impossible to go on. Somewhat reluctantly, therefore, we turned back, and after a rough experience we reached the Ball Hut at 7.30 P.M. We were much alarmed when we found that King's name was not entered there as having returned, and we became very anxious indeed. On Tuesday morning we started out early to ride to the Hermitage, but we had not gone far before we met Peter Graham,

Conrad Kain, William Brass, and F. Milne, on their way up to see if any trace could be found of King's party, which had evidently been on the Linda Glacier at the time when the huge avalanche had swept down. Knowing that we would not be back until Thursday, I decided that I must go on to the Hermitage first, and telegraph to my people to let them know that Turner and I were safe. From the old Hermitage I telephoned my message to Mr. Wilson, and the people at the new Hotel were relieved to know that Turner and myself were not involved in the catastrophe, as Monday had been such a frightful day, with a terrific gale from the north-west.

'I at once rode straight back to the Ball Hut and followed through alone to the Bivouac on Haast Ridge, Turner having gone up in the afternoon with the four guides. Graham and Kain had chipped steps, as the snow was very hard, up to the Glacier Dôme, and I managed to catch them up just as it was getting dark, at 7.45 P.M., at the Bivouac.

'We started out at 5 o'clock on Wednesday morning, as it was useless to get away before daylight, and making all possible speed we soon reached the foot of the mighty avalanche. There we all spread out and ascended the avalanche up the Linda Glacier, searching carefully as we went. We saw nothing but mighty blocks of ice tumbled in confusion in the avalanche.

'At 10.15 A.M. we all reached the top of the avalanche without having seen a single trace of the missing party. We satisfied ourselves, however, that their descending steps came as far as the head of the avalanche. We were agreed that nothing more could be done, but we kept a keen and careful look-out as we descended the avalanche.

'At about 11 A.M. Peter Graham suddenly caught sight of a small, black object, which he first thought to be a stone, but which proved to be one of Richmond's boots, sticking out of the upper wall of a narrow crevice. There were piles of ice above the body, which was completely buried. We all set to work with a will to get the body out, but it took over an hour's hard work with an ice-axe to get at it. The ice was very firm and hard, and the mournful job was very trying.

'When we finally got the body clear, we found that the rope by which the man had been secured to his companion had been broken clean through by the sharp blocks of ice about six or seven feet behind him. The body was identified by the guides by means of the watch and other belongings. The watch had stopped at five minutes to five, and from the position where the body was found, and the nature of the avalanche, it was evident that King and his guides were right underneath the point where the avalanche broke off from and started on its lightning rush. Richmond being in front on the rope, the chances were that King and Thomson were struck first and swept down in front of Rich-

mond. We were of the opinion, therefore, that in all probability King and Thomson were swept over the ice-fall into the enormous crevasses at the place where the Linda Glacier sweeps round the north-east buttresses of Mt. Cook.

'The avalanche had been an appalling one. It was fully a mile in length, and it completely filled up the bed of the Linda Glacier. It had been an enormous affair. Millions of tons of ice had broken away from the unnamed peak on the divide north of Dampier Peak, and with incredible swiftness had swept down an ice-faced precipice and right across the Linda Glacier until it had smashed with titanic force against the north-east buttresses of Aorangi, on the far side of the glacier. Then it had turned and swept right down the surface of the Linda. There were thousands of huge blocks of ice nearly as big as a house in the avalanche. It was made up of pure glass-like ice and snow.

'Peter Graham and Conrad Kain agreed that in all their long Alpine experience they had never seen such a huge avalanche before. They had seen nothing which approached it in size either in New Zealand, Switzerland, or Canada.

'Sunday was a very hot day, which probably accounted for this mighty avalanche. The whole of the surface of the Linda Glacier had been swept by avalanches that day. A huge one came down off Mt. Cook at 8.30 on Monday morning not very far from Turner and myself. Clouds of powdery snow were swirling in the air all around us from the rush of the avalanche. Away to our left there were many other minor avalanches that day further down the Linda Glacier.

'We were all of opinion that King, Thomson, and Richmond were right below the avalanche as it broke off from the peak, and that death would be instantaneous. The avalanche had practically a sheer drop of 1000 feet. Richmond's body was found about half way down the avalanche, at an altitude of about 9000 feet. It was a shocking end to what must have been up till that point a very happy expedition. The day was perfect, and they had had a glorious climb. From the time at which poor Richmond's watch had stopped we judged that they must have stayed on the summit of Mt. Cook for some two or three hours, basking in the bright sunshine and enjoying the wonderful panorama of snow-clad peaks, huge glaciers, the distant sea, and the wide stretches of mountains, hills, and plains spread out before them. Then they descended, and having reached the Linda Glacier, they were most likely jogging happily along until the mighty avalanche crashed down on them, sweeping them to instant death.

'Having found Richmond's body and satisfied ourselves that there was not the slightest possibility of finding King or Thomson, we wrapped the body carefully in some blankets we had taken for the purpose and started off down the tumbled and frightfully rough surface of the avalanche at 12.45 P.M. We had a dreadfully

difficult and dangerous task getting the remains down. We had frequently to secure our ice axes in the faces of the ice and lower the body by means of ropes, stage by stage. In one or two places Graham and Brass actually carried the heavy weight single-handed. It took us half an hour to get it to the side of the avalanche, and our difficulties were almost as bad on the crevassed and broken surface of the glacier. Finally we reached a point just above the Bivouac on Haast ridge, about 5 p.m., and there we buried the body in the snow for the time being. During the last hour or two the weather had become very stormy, and it was snowing hard as darkness came on. The night was a terrible one, and although we were dead-tired we hurried down with all possible speed to the Ball Hut, where we arrived about 8 o'clock on Wednesday night. On Thursday morning Peter Graham started off early for the Hermitage, to make the necessary arrangements about getting the body down. Turner and myself walked down later, as having got the body down so far there would be no great difficulty in getting it to the Ball Hut. Peter Graham had many willing and competent hands with him.'

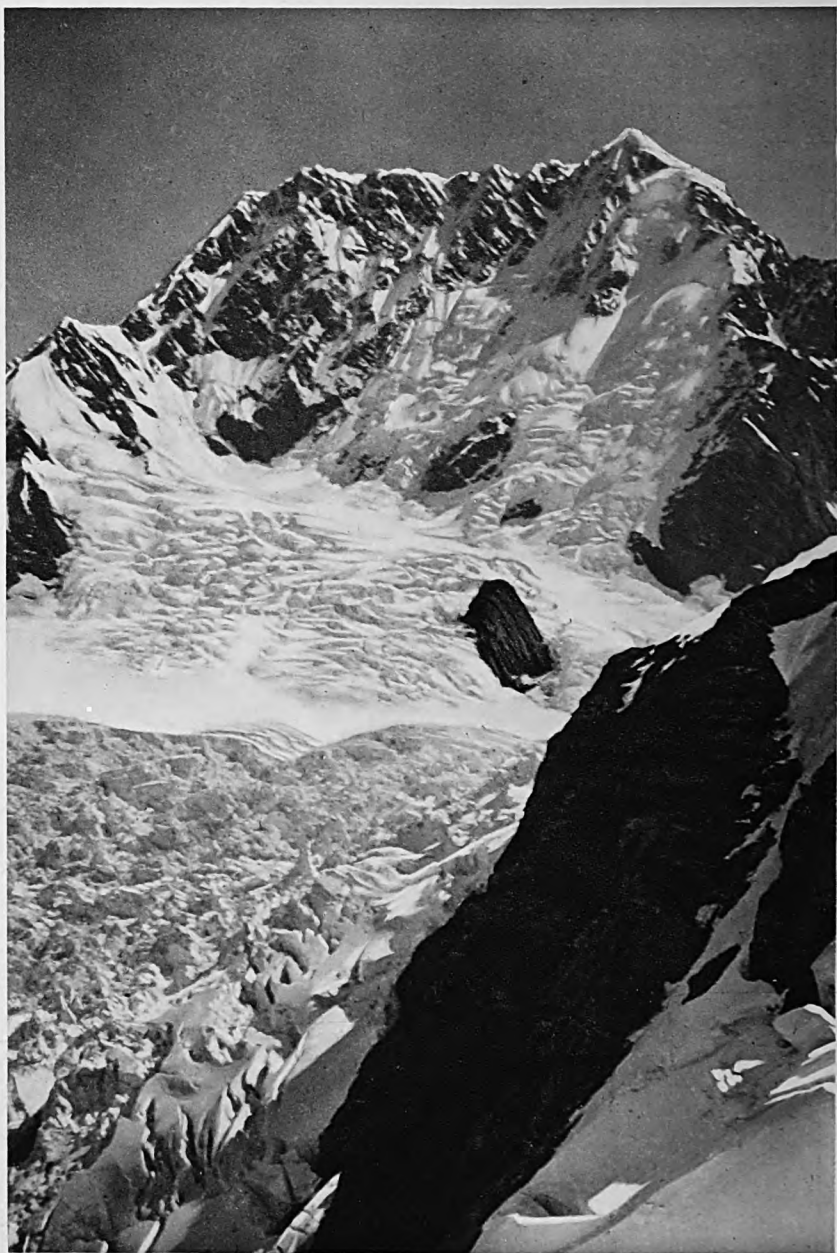
Mr. B. M. Wilson, General Manager of the Tourist Department, adds the following particulars :

'Richmond was a giant, and his body had to be taken from the level of 9000 feet, down to the foot of the glacier. Only those who had heard the details of this superhuman struggle could understand what these men went through. Fortunately they had with them, in Conrad Kain, a man well used to such accidents in Europe and other parts of the world, and his experience was of the greatest value. This plucky man had, with Brass, who also joined the search party, crossed the mountain from the Hooker side, and immediately on being informed of the probability of accident, started out to help in the rescue work. Peter Graham, who is a past-master in alpine work, says that he could not find words to express what he thought of Conrad. Mr. Turner, Mr. Dennistoun, and all the guides, also worked with a will, and eventually succeeded in getting the body to the Bivouac. Kain and the guides stayed at the Ball Hut, where Graham returned with Mr. Frind and other willing helpers, to bring the remains down the glacier.'

The following letter appeared in *The Times* :

TO THE EDITOR OF 'THE TIMES.'

SIR,—My attention has only just been called to your notice of 'The New Zealand Alpine Fatality.' The accident occurred on the Linda Glacier. As I, with my two companions, the late Emil Boss and Ulrich Kaufmann, were, in 1882, the first to traverse this glacier and to give it a name, it is with no ordinary pang I have read of this sad event. I do not understand how anyone could say 'the spot had always been regarded as quite safe.' We traversed this glacier from



T. Evans, photo.

Luan Electric Engraving Co. Ltd.

Mt. Cook, & Hochstetter Icefall.
from the Haast bivouac

end to end on March 2, ascending, and next morning descending. In the interval several large avalanches, falling from the ridge that connects Mt. Cook and Mt. Tasman, swept the glacier right across, while a large number of smaller ones stopped halfway.

I have watched all the climbing records of more modern days and often wondered how the Southern Alps had claimed no victim. The blow has now fallen, and my sympathy goes out to those who are in sorrow over it.

Yours faithfully,

WM. SPOTSWOOD GREEN (A.C.).

5 Cowper Villas, Cowper Road, Dublin, March 6.

NOTE ON THE PHOTOGRAPHS OF MT. COOK.

The picture of Mt. Cook from the Haast bivouac shows the E. face with the icefall of the Hochstetter Glacier. The Linda Glacier lies beyond the ridge on the right. The photograph has kindly been placed at our disposal by Mr. Gran, who made the ascent in 1913.

The Zurbriggen arête is well shown in this picture, and starts above the rognon in the glacier rather to its right front.

In the photograph in 'A.J.' xxvii., opposite p. 100, of the W. or Hooker side of Mt. Cook, the summit is on the *left*-hand end of the ridge and the lower point on the *right*-hand end, and *not as marked in error on the photograph*. The ascent from the Hooker side, first made in 1909 by Mr. L. M. Earle with the two Grahams and Clark, is up the left-hand rock buttress direct to the summit.

Miss Du Faur's party, referred to below, bivouacked on the little rognon in the glacier at the foot of the right-hand rock arête (leading to what looks like the highest point), which they followed with occasional traverses on the left side to the right-hand or lower point of Mt. Cook. As stated above the 'summit' and 'lower point' are transposed on the picture. From the lower point Miss Du Faur's party followed the main arête to the summit of Mt. Cook, descending by the Linda route, thus making the first traverse of the three summits.

On the marked picture the line is the line of ascent by the Linda Glacier now generally taken, and first followed by Dr. Teichelmann, the Rev. Mr. Newton and Mr. Lowe, with the guides Jack Clark and Peter Graham, in 1906. This line for the lower half, of course, follows Mr. Green's original line.

The line along the ridge to the left marked 'Du Faur' shows the first traverse of the three peaks of Mt. Cook made in 1913 by Miss Du Faur with Peter Graham and the late D. Thomson, the arête being gained from the W. as mentioned above.

The line running right up the central arête in the foreground direct to the summit marks Zurbriggen's line of ascent in 1895. *An arête is undoubtedly always the safer route*, and doubtless the lesson of the

present accident on the Linda route will not be thrown away, and will result in drawing the attention of the many good mountaineers in New Zealand to finding a safe route up their splendid mountain. We may therefore confidently expect that the Zurbriggen route will be carefully studied, and when in reasonably good condition will become a principal line of ascent.

The — line is the Rev. Wm. S. Green's line of ascent and has been kindly marked by him for the Journal. He writes as follows :

3 Kildare Place, Dublin,
May 22, 1914.

DEAR CAPT. FARRAR,—I return the photo. of Mt. Cook. I have marked — our exact route up, and we followed the same down. With regard to upper limit, I am sure we reached the point where the line stops, but the crevasse to the right extended farther our way than in the photograph. This would probably be accounted for by the varying states of the snow, and we were in such a blizzard that any discussion about the situation was impossible. We may have got to the next 'dimple' above, but I don't wish to mark anything doubtful. The place where we tried to make a little cairn was where the rocks terminate, and where we spent the night was where I have put a dot. Above that couloir we made an abortive attempt to go straight up; this I have also indicated. We were very near taking the route afterwards taken by Zurbriggen, and Kaufmann favoured it. It was I selected the Linda Glacier route because I wanted to see our way ahead. This we could not do on Zurbriggen's route, and after failing on two other tracks largely from this very cause and thus losing a lot of time I was against it. It was a bad decision, owing to soft snow we soon got into, and the danger of avalanches.

Yours very truly,
WM. S. GREEN.*

Finally the line on the right-hand sky-line shows the upper portion of the first complete ascent of Mt. Cook, the ascent to the arête being from the W. or Hooker side, made by T. C. Fyfe, George Graham and Jack Clark in 1894, who returned the same way.

The probable place where the ice avalanche overwhelmed Mr. King and his guides on the Linda Glacier is marked by a cross. The avalanche came from the right-hand hanging glacier.

We are indebted to Miss Du Faur for information in compiling this note, as well as for the photograph.

* Cf. *A.J.* xviii. 191, where Mr. Green writes as follows :—'Zurbriggen's route is, I feel sure, the best and safest, but we had not the advantage which he had of inspecting it from the summit of Mt. Tasman, and therefore did not trust it, although we fully discussed its merits.'

Miss Freda Du Faur, who, with Peter Graham and Thomson, made in 1913 the first traverse of the three peaks of Mt. Cook, has kindly furnished the following appreciation of the two guides who lost their lives:

‘David Thomson, who was about thirty years old, was a native of the west coast of New Zealand; he was Peter Graham’s second in seniority at the Hermitage and his right-hand man. From a variety of reasons Thomson had not come much to the fore until the last two seasons when he came out in his true colours as one of the finest guides New Zealand has produced. A true mountaineer, with all the keen inborn love and reverence for the mountains that marks the best of guides, he took a fine pride in his profession. In ice work he was considered the best and quickest stepcutter in New Zealand. It is a great pleasure to me to remember how glad he was to be elected second guide last year when we made the first complete traverse of Mt. Cook; he regarded the climb as the finest of his career. I like best to think of him as he was that day, stretched at his ease on the hardly-gained peak, smoking the eternal pipe and reviewing the route with intense satisfaction. Between puffs of his pipe he brought forward the opinion that the complete traverse might be done again in twenty years but probably never. He did splendid work that day with untiring cheerfulness. He was also my second guide on the first traverse of Mt. Sefton, and did considerable climbing with Mr. S. Turner who preferred him to any guide at the Hermitage. In losing him New Zealand has lost one of her ablest guides, one that it will take many years to replace. Both climbers and friends most deeply regret his early death. It is some consolation that he met his end as a brave man should, at the height of his career, and in a moment of success on the greatest of his beloved mountains. I doubt not that his end was such as he would himself have chosen, whilst among his comrades his memory will live long, kept green by many a talk in lonely bivouacs, and on the great mountain with which his death must ever be associated—a mighty monument under which the bravest of us would be proud to lie.

‘Jock Richmond, whose home was at Willowbridge, South Canterbury, had only been attached to the Hermitage guiding staff for the last two seasons. He was looked upon as the most promising of the younger guides. Peter Graham who had a particular affection for him, believed him to have the makings of one of the best guides he had ever had in his hands to train. Richmond was only about twenty-five years old, of a splendid physique and a great favourite with the parties he guided, by reason of his particularly quiet, gentle and unassuming helpfulness. He was with me on an expedition to Tuckett’s Col, and after one experience of him as second guide I am inclined to think that Graham had by no means over-estimated his climbing qualifications. This was his first ascent of Mt. Cook, though he had been on several other high expeditions.

I can imagine the deep pleasure he must have experienced at taking part in such a great climb so early in his career, and with what a joyful heart he was returning to his comrades, who will regret so deeply the untimely end of what promised to be a splendid career.'

NEW EXPEDITIONS IN 1913 AND 1908.

Dauphiné.

TRAVERSE: MONTAGNE DES AGNEAUX (3660 m. = 12,008 ft.)—ROCHE DE JABEL (3602 m. = 11,818 ft.)—PIC DES PRÉS LES FONDS (3363 m. = 11,034 ft.). August 18, 1913.—Messrs. Harry Runge and W. R. Cæsar, with Abraham Müller, jun., and Gottfried Müller, left the Chalets de l'Alpe at 3.15 A.M. and followed the Coolidge route (July 17, 1873) to the W. summit of the Montagne des Agneaux. On reaching the névé basin between the N. arête and the great buttress to the W. they deviated from the Coolidge route by turning to the left (E.) and mounted to a snow col, overlooking the Glacier du Casset, in order to prospect for an alternative route home in case of traversing the Agneaux. Then, retracing their steps, they again followed the Coolidge route, circling round the névé basin, bearing to the right. This deviation and a previous halt of 45 minutes for breakfast occasioned some loss of time. The steep arête leading to the W. summit was in bad condition, with insecure snow, which had to be cleared away, leaving hard ice, entailing prolonged step-cutting. Crossing over the Central Summit (11 A.M.), they reached the E. and highest point by rocks 11.20 A.M. After a stay of 35 minutes they descended the E. rock arête to the small col between the Agneaux and the Roche de Jabel; thence traversed the N.N.W. face of the Jabel by cutting across an exceedingly steep, hard ice slope to a small gap at the E. foot of the rocks leading to the summit of the Jabel. After ascending a short, steep buttress, they gained the E. arête and then, bearing to the left, scrambled a short distance up the face, then on to the arête again, reaching the summit at 1.25 P.M. Descending again to the above small gap, they cut down, for about 50 ft., a narrow ice couloir leading to the Monestier Glacier and facing S.E., then turned left—N.E.—and ascended to the arête (rocks and snow), which they followed down to the Col du Casset; thence a somewhat broken arête, rocks and snow alternating, led to the summit of the Pic des Prés les Fonds. From this peak a broad snow arête runs down N.E., splitting after a short distance into two arêtes ending on rocks and enclosing a broad snow-and-ice couloir. They kept to the arête on their right at first, and then glissaded down to the broad snow col des Prés les Fonds,

from which they descended to the upper basin of the Glacier du Casset. They crossed this glacier in an easterly direction and cut up a small but steep couloir to the snow col * visited in the morning on their ascent to the Agneaux. Descending on the W. side to the Glacier d'Arsine they regained their morning's route, reaching the Chalets de l'Alpe at 7.30 P.M.

The tour of this amphitheatre of peaks is to be recommended on account of the fine views and interesting and varied climbing obtained, also for the insight it affords into the somewhat complicated ridge and glacier system of the Agneaux group.

Pennines.

THÄLIHORN (3485 m. = 11,431 ft.) BY THE N. ARÊTE. Messrs. Ferdinand Schjelderup and Geo. Finch, August 2, 1913.—'From a bivouac on the left bank of the Laquin Glacier we gained the foot of the N. ridge in 3 hours. Following the ridge and climbing over the majority of the numerous gendarmes, we encountered no serious difficulty until confronted by the last pinnacle before reaching the summit. Turning this pinnacle by climbing the slabs E. of the ridge (difficult), we gained the summit at 1 P.M. (4 hours; from bivouac 7½ hours). We each carried about thirty pounds in our sacks, which probably accounts for the somewhat lengthy times.'

STECKNADELHORN (4235 m. = 13,896 ft.) BY THE E. FACE. Messrs. F. Schjelderup and Geo. Finch, August 1913.—'We ascended the E. ridge of the Nadelhorn to a point slightly higher than the Ulrichshorn, cut down the steep N. flank of this ridge and crossed the bergschrund, under which we traversed in a horizontal direction until almost directly under the summit of the Stecknadelhorn. Mounting directly upwards over the snow slopes (in some parts exceptionally steep) without ever being obliged to use the axe, we gained the Nadelhorn-Stecknadelhorn ridge immediately to the S. of the latter peak. Thence in three minutes to the top. Time from point on Nadelhorn E. ridge, one hour.'

[This route is on the same face as Messrs. Williamson's and Symons's descent from the Stecknadeljoch, described in 'A.J.' xxv. 362, but lies apparently rather more to the N.]

DENT DES ROSSES (3620 m. = 11,877 ft.) BY THE N. ARÊTE. Messrs. C. G. Monro and J. M. Rattray with Antoine Bovier, père, of Evolena. July 1908.—'We made the ascent by the N. ridge which is narrow and consists of sound rocks giving a most enjoyable scramble of about an hour from the Col de Moiry. We descended by the S. snow ridges and went on to the Col de la Pointe de Bricolla

* N.B.—This col is clearly visible from the pastures above the Chalets de l'Alpe.

and so back to Ferpèche. We did not think the expedition could be new and so did not record it sooner. It provides an enjoyable day's round from Ferpèche.'

The first ascent of this summit was made in 1891 by Mr. Monro's party as recorded 'A.J.' xv. 546.

Tödi District.

BIFERTENSTOCK (3426 m. = 11,241 ft.). **ASCENT BY THE W. RIDGE.** Messrs. T. G. B. Forster and Geo. Finch, September 9, 1913. —'From the Biferteulücke (7.20 A.M.) we followed the ridge until further progress along the crest became impossible. Traversing about 10 metres on the N. side of the ridge, we then climbed almost directly upwards over a 10-metres-high wall (partly overhanging, bad rock; very difficult) and reached a small ledge providing sufficient standing room for one man, but no belay. Climbing from here directly upwards after some 10 metres further progress became barred by a huge overhang, directly under which the leader drove in a piton, over which the rope was passed, and after descending about 6 or 7 metres was able, thanks to the protection afforded by the piton, to accomplish a very difficult traverse of about 15 metres on to the ridge. Thence the overhanging nose at the top of the first great step was gained by climbing close to the crest of the ridge, partly over slabs and partly through a difficult crack (9 A.M.; cairn). Following the ridge, avoiding some steps on the N., others on the S. side, comparatively easy ground, one or two difficulties, brought us to the summit of the last but one great step (cairn). An attempt to climb the last step, about 30 metres to the S. of the ridge, failed. Traversing still further to the right over some very bad difficult slabs, we gained the foot of a shallow slabby couloir, up which some 30 metres very difficult climbing brought us out on to easy broken ground about 15 metres below the heavily-corniced ridge. Through a gap in the cornice we gained the ridge without further difficulty (1 P.M.). Following the ridge and keeping well on the N. side (owing to the cornice), the summit was gained at 2 P.M. The view, during the last hour of the ascent, down over the precipices of the Biferten N. Wall was remarkably fine. Return via S. ridge and Frisallücke to the Ponteglias hut.'

[In the photograph the ascent lay up the left-hand arête—the position of the piton is about the level of the man's head. The cairns are indicated by white circles. The line of descent is down the right-hand arête.]

Eastern Alps.

NEW ASCENTS IN 1912.—The 'Mittheilungen des D. und Œ. A.-V.,' 1914, pp. 39-44, contain a very careful summary, prepared by Dr. Franz Hörtnagl, of Innsbruck, of the principal new routes in the



Geo. Finch Sept. 19

[Sloan Electric Engraving Co., Ltd.]

BIFERTENSTOCK.
(From the Bündner Tödi.)

Geo. Finch, photo.



Eastern Alps which were opened in 1912. The summary is divided into groups, and gives the necessary references to published accounts of the various expeditions.

The 'Oesterreichische Alpenzeitung,' 1913, pp. 401-7 and 422-427, also contains a similar detailed summary compiled by Herr Fritz Hinterberger, of Vienna. Among new ascents are mentioned: Three new ascents of the Totenkirchl; the direct ascent of the W. face of the Predigtstuhl; and the direct ascent of the W. face of the Rosengarten.

VARIOUS EXPEDITIONS IN 1913.

Pennines

WELLENKUPPE (3910 m. = 12,825 ft.).—The N. ridge of this peak, from the Triftjoch, deserves to be better known. Many climbers go up and down the mountain by the ordinary way from the E., either as a training expedition, or because it can be done under bad conditions or in doubtful weather, and probably find it, except for the 'steep wall of firm rock, a delight to climb' (Conway, p. 99), rather dull. To traverse the peak only adds about $1\frac{1}{2}$ hours to the length of the expedition, and gives some varied and excellent rock-climbing.

Mr. Gilbert Davidson and I left Zermatt at 2.30 A.M. on August 25, 1913, in weather which certainly would not have done for a big mountain, warm, cloudy, with slight rain—so bad, in fact, that parties sleeping at the Trift Inn did not start. But it improved a little, and though the higher peaks remained in clouds, ours cleared, and we had nothing to complain of but a high wind on the ridge. The ordinary route brought us close to the couloir, mentioned in Conway, which leads up to the ridge a little S. of the Triftjoch. This was soft snow at first, then became a steep and narrow gully filled with ice, so we took to the rocks on the left (S.); which did not give us much trouble, except in one place where we wandered rather too far from the couloir. But it would probably take no longer to begin from the Triftjoch itself. The ridge itself falls into two sections. In the first the rock is narrow and broken, but sound and nowhere difficult; two formidable-looking towers are easily turned on the E., though they could probably be climbed if necessary. This part, which took us three-quarters of an hour, was free from snow. The second section consists of rock and snow mixed, the rock in flat or shelving slabs, not difficult, but on this day carrying much fresh snow. Forty minutes took us up this, and another five minutes on a broad snow ridge brought us to the top, in $7\frac{1}{2}$ hours easy going from Zermatt, of which 1 h.

40 mins. had been spent on the ridge. We descended by the ordinary way to the top of the moraines in just under $1\frac{1}{2}$ hours. Mr. Davidson, having to catch the afternoon train for London, hurried on; I allowed myself another $1\frac{3}{4}$ hours to Zermatt.

Now that the W. side of the Triftjoch is 'out of bounds' for sensible people, a good way to Zermatt from the Mountet is to traverse the Trifthorn, descending the S. ridge to the top of the pass. This could very pleasantly be combined with the traverse of the Wellenkuppe as described above, without making the day a long one.

H. V. READE.

ALPINE NOTES.

'BALL'S ALPINE GUIDE.' VOL. I. 'THE WESTERN ALPS.'—Copies of the new edition (1898) of this work, price 12s. net, can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART I.—A new edition (1907) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of A. V. Valentine-Richards, Fellow of Christ's College, Cambridge, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes those portions of Switzerland to the N. of the Rhône and Rhine valleys. Price 6s. 6d.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART II.—A new edition (1911) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of the Rev. George Broke, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes 'those Alpine portions of Switzerland, Italy, and Austria, which lie S. and E. of the Rhône and Rhine, S. of the Arlberg, and W. of the Adige.' Price 7s. 6d.

THE ALPINE CLUB OBITUARY.—Amphlett, G. T. (1911). King, S. L. (1906). Minto, Rt. Hon. the Earl of (1866). Osbourne, J. S. (1872). Pryor, P. A. L. (1893). Caddick, A. (1879).

THE NEW PRESIDENT OF THE ROYAL GEOGRAPHICAL SOCIETY.—We offer our hearty congratulations to Mr. Douglas Freshfield on his election to the Presidency of the R.G.S. in succession to our Honorary Member The Rt. Hon. Earl Curzon of Kedleston.

D. UND Ö.A.V.—The total income of this great Association for the year 1913 was as follows :—

Members' subscriptions (100,934, including 2434 new members)	Mark. 682,134
Interest	7,296
Various sources	6,317
Advertisements	19,154
	<u>714,901 = £35,745</u>

The expenditure was as follows :—

'Zeitschrift' (c. 98,000 copies)	242,420
'Mittheilungen' (c. 98,000 copies)	129,215
Huts and paths	220,422
Management	38,640
Expenses in connexion with guides	27,397
Central Library	15,000
Alpine Museum	20,000
Accident Fund and rescue organization	22,048
Other objects	13,884
	<u>729,026 = £36,451</u>

It will be noted that the Verein spends on its publications, the annual 'Zeitschrift' and the bi-monthly 'Mittheilungen,' about 49½ per cent. of its total income. The total funds of the Association amount to Mark 340,279 = £17,014, exclusive, of course, of their other assets, such as huts, &c.

AUSTRIAN ALPINE CLUB (Ö.A.C.).—The annual accounts of this Club show the following position :—

Receipts.	K.
725 members' subscriptions	10,870
Various sources	2,455
Receipts at and rent of their three huts	22,185
Advertisements &c.	3,826
Sale of publications	8,834
	<u>48,170 = £2010</u>

Expenditure	K.
'Die Ö.A.Z.'	11,563
Upkeep of huts	10,670
Management	6,792
Premium to guide	190
Library	337
Publications	9,595
Other objects	45
	<u>39,192 = £1630</u>

It will be noted that this Club spends on its very admirable bi-monthly Journal 60 per cent. of its subscriptions, or 24 per cent. of its total income.

The annual report is, as usual, very interesting. Herr Hans Biendl has completed his tenth year of presidency, and is to be congratulated on the high and well-earned position occupied by his Club.

During the year the Club brought out a very exhaustive guide to the chain of Mont Blanc, already reviewed in 'A.J.,' and a translation of Dr. Coolidge's 'The Central Alps of the Dauphiny.' The 'Zeitung' continues, under the able editorship of Herr Hans Wödl, to be one of the best informed and most readable of Alpine publications. The Wienerhütte on the Hochfeiler has been completely rebuilt. Among the losses by death are numbered Dr. von Lendenfeld, the well-known explorer, and the fine mountaineer, Eduard Wagner.

SCHWEIZER ALPEN-CLUB.—The published accounts to December 31, 1913, give the following interesting information :—

Total members (including 1371 new members)	13,720
Total income, inclusive of the subscription to the 'Jahrbuch'	fr. 147,130 = £5885
The principal items of expenditure are :—	
New huts	12,090
Repairs to huts ; furniture, assurance, and paths	11,626
'Alpina,' after deduction of proceeds of advertisements, &c.	17,041
'Jahrbuch,' vol. xlviii.	56,230
Instruction and assurance of guides	10,820
Rescue arrangements	2,140
Various subventions	5,879
Publication of guidebooks	7,072
General expenses	13,082
Instalment to building fund of the Swiss Alpine Museum	7,000
	fr. 142,980 = £5720

The total funds of the Club amount to fr. 74,180 = £2967, exclusive of balances standing to the credit of various special funds, and of their property in huts, &c.—'Alpina,' April 1, 1914.

OBLIGATORY INSURANCE OF MEMBERS OF THE S.A.C.—The final decision has been referred to the meeting of Delegates which takes place in the autumn, so that for this year the proposal will not take effect.

NEW HUTS OF THE S.A.C.—The Bovalhütte and the Sustlihütte

are to be completed this year, and repairs and additions made to the Bertol, Saleinaz, Mountet, Hörnli, and some smaller huts. The total cost is expected to reach £800.

MONT BLANC FÜHRER DES Ö.A.C.—It is interesting to note that 1860 copies of this excellent guide, reviewed in the last JOURNAL, were printed, of which 850 copies had been sold by January. The cost of the book to the Ö.A.C. was very nearly £500.

THE HUTS OF THE Ö.A.C.—The reconstructed Johannhütte on the Gross Glockner is now in full working order. The Zsigmondyhütte in the Sexten Dolomites has been enlarged and improved. The Wienerhütte on the Hochfeiler has been completely rebuilt, and will be ready for this summer.

All these huts are now 'bewirthschaftet' by capable *gardiens*.

WEATHER IN THE COURMAYEUR DISTRICT.—Towards the end of March heavy snowfalls occurred and much damage was caused to the chalets in the Val Veni and the Val Ferret by avalanches. One enormous avalanche fell from near the Col du Géant, traversed the snout of the Brenva Glacier, and mounting right on to the high moraine of the further bank completely destroyed the restaurant and Mont Blanc relief and museum of M. Joseph Proment.

DR. DE FILIPPI'S HIMALAYAN EXPEDITION.—The following extract from a letter dated March 22 from Leh (Ladakh, Kashmir) has been published :—

'I have been here ever since March 2, fighting with many obstacles and endeavouring to forward an enormous accumulation of stores ; no easy task, as a pass of over 18,300 ft., the Chang La, has to be crossed to get into the Shyok Valley. I have employed about 60 men, with as many yaks, to beat a track in the deep snow, with, of course, fresh snow falling all the time and undoing my work. Fortunately I began early, and things are getting on with the advancing spring.

'... Most of the existing ideas as to the construction and geological history of the Upper Indus Valley will be considerably changed. A large number of splendid photographs have been taken by the photographer, as well as cinematograph films, which I hope will prove very interesting.

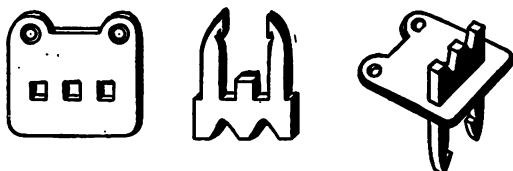
'During April some of us will go to the Rupshu Plains for the purpose of making gravity observations ; Dainelli will wander off towards Spiti in search of fossils ; and I shall cross over to Shyok to start the transport on to the Depsang Plains. By this arrangement no time will be lost.'

Corrigendum, 'A.J.' xxviii. 116. In the fifth line from the top for 'Hannibal' read 'Hadrian.'

AKADEMISCHER ALPEN-CLUB, ZÜRICH.—We are officially informed that the following is the constitution of the Committee for the summer semester :

<i>Präsident</i>	.	.	.	L. A. Hürlimann.
<i>Aktuar</i>	.	.	.	B. Lauterburg.
<i>Quästor</i>	.	.	.	E. Hauser.
<i>Bibliothekar</i>	.	.	.	H. Morgenthaler.
<i>Projectionswart</i>	.	.	.	B. Lauterburg.

THE TRICOUNI BOOTNAILS.—It will be seen from the sketch that this is a built-up nail. It is claimed that it can be fixed nearer to the edge of the sole than the ordinary wing nail, that the edge will remain sharp much longer, and that a boot thus nailed is much lighter. No doubt the platform also to some extent protects the soles. They should be planted round the edge of the sole right up into the waist of the boot at about 1-inch intervals; thus a sole



will take about twelve nails. Along and quite close up to the front edge of the heel it is best to set three of the nails with their broad faces parallel to the front; one nail on each side of the heel and two planted closer together at the back of the heel suffice. Thus a set for a pair of boots is about forty.

For the flat of the soles of the boots they would appear to be too high, and it will probably be found better to continue to use six or eight hobnails for each sole. But for the edges, if they will stand reasonable wear, they must prove excellent, especially on ice and steep grass, as well as on rocks.

The following instructions are given by the makers :

MODE OF FIXING THE 'TRICOUNI' NAIL.

In order to make the driving in of the nail easier it is advisable to let the soles of the boots stand in water for about 45 to 90 minutes, according to the quality of the leather. Then mark the places for each nail on the soles about $\frac{1}{4}$ in. from the edges and drive them in on a last with a flat-headed hammer, but only until the platform reaches the sole; every additional stroke will only weaken its grip in the now soft leather. When all the nails are in, fix each one by driving in two wire tacks.

If old boots are being shod with the 'Tricouni' nails, first remove the old nails and fill the holes with wooden plugs.

The agent in England is Wm. Stern, 40 Brazennose Street, Man-

chester, and the price of the kind illustrated (D pattern) is 4s. 6d. for fifty nails. Reports of users vary considerably. Mr. H. V. Reade used them last year and thinks very highly of them. Cf. also *The Climbers' Club Journal*, 1914, *The Tricouni Nail*.

THE EFFECT OF ALCOHOL ON MOUNTAINEERS.—The February number of the *Rivista Mensile* of the Italian Touring Club publishes some interesting particulars of researches into the effects of alcohol on mountaineers, carried out last summer in the Monte Rosa district. The experiments were undertaken by a group of young Italian and American scientists, under the leadership of Professor G. Galeotti, at the suggestion of Professor Benedict, of the Carnegie Nutrition Laboratory of Boston, U.S.A. The well-equipped laboratory at the Col d'Olen (2900 m.) served as their base of operations, which lasted from July 21 to August 11. During this period numerous expeditions of varying length and mostly above the snow-line were undertaken, the longest being a 15½-hour day on the N. arête of the Corno Bianco. Most of the routes were repeated twice under conditions varying from total abstinence to indulgence in measured quantities of cognac. The tests were very carefully made with up-to-date instruments immediately before and after each day's march. Among the chief results it was found that, after exact allowances had been made for food, drink, etc., there was a considerable net falling off in the weight of the body during mountaineering, the chief cause being moisture given off in respiration and perspiration. The body's internal temperature was found, as a rule, to increase, the figures obtained varying from 0.1 to 1.2 degrees centigr. When cognac had been used on the march the increase in temperature was slightly greater than without it. Great differences were found in the pulse action after an expedition. Not only was the pulse faster (in some cases 30–40 beats more to the minute), but the form as shown by the curves on the sphygmogram was different. Pulse and other comparative diagrams are given in the T.C.I. paper. The pulse was found to resemble that associated with typhoid or other infectious disease. When alcohol had been only sparingly partaken of on the march, it seemed rather to improve the pulse—the contrary when taken in larger doses. Blood-pressure in the arteries was less after an expedition, but if spirits had been used this diminution was less pronounced, and in some cases there was an increase. Considerably increased frequency in the number of respirations per minute, and modifications in the type and rhythm of the breathing, were invariably noted after mountaineering. In all cases these phenomena were influenced by the use of alcoholic stimulants, indicating impaired excitability of the nerve centres governing the breathing organs. Muscular power was, generally speaking, found to be greater after than before an expedition, but this increase (which is distinct from that produced by training) was merely temporary and disappeared after

rest. It was probably due to the brisker blood-flow set up by recent exertion.

The practical conclusions arrived at embraced the following: (1) No stimulants of any kind—not even tea or coffee—are necessary to the mountaineer in full training. Suitable food, sparingly partaken of, is all that he requires. (2) The effects of alcohol on the system during exertion vary so greatly in different individuals, and even in the same person at different times, that it is impossible to lay down any law with regard to them. (3) Small doses of cognac have a beneficial effect on *some* persons. In emergencies, therefore, it may prove useful in quantities of, say, 10 to 15 cub. centim. (4) Alcoholic stimulants in large quantities invariably do harm, especially to persons unaccustomed to them. The more tired the climber, the worse the effect on him—moral and physical. (5) The action of alcohol at high levels is exceedingly transitory—much more so than at ordinary levels; this is especially true of the excitement stage, and not so marked as regards the depression stage, which always follows, intensified as it is by fatigue.

NOTES ON THE CAUCASUS.

MR. RAEURN'S 1914 EXPEDITION TO THE CAUCASUS.—A further expedition has been planned for this summer. Any member wishing to join can get all information from Mr. Harold Raeburn, 1 Belhaven Terrace, Edinburgh.

AFANASIEFF'S CLIMBERS' GUIDE TO THE CAUCASUS.—Attention was drawn in 'A.J.' xxvii. 105 to this very valuable compilation. An appendix has now been issued by the author, and can be obtained gratis by owners of the volume from Lindauer's Buchhandlung, Munich.

TRAVELLING IN THE CAUCASUS.—Dr. Oscar Schuster, who has made several journeys to the Caucasus, of which particulars have been published in this JOURNAL from time to time, publishes in the Ö.A.Z. 1914, 40-44, 60-64, 78-81, a very valuable paper of advice to travellers. The titles of the chapters are as follows:

- I. Before and during the journey to Russia. Preparations before starting into the Mountains.
- II. Other hints and useful remarks.
- III. European guides and porters.
Dr. Schuster does not on the whole recommend taking Alpine guides to the Caucasus, especially as the climbers who undertake an expedition possess, as a rule, sufficient experience.
- IV. Clothing and outfit.

This chapter deserves very careful study, and includes a list of requirements that appears to be very complete.

V. Provisions.

Dr. Schuster gives a list of provisions required for three persons for a stay of twenty to twenty-five days in the mountains. He allows 1 lb. of tea, 1 tin of cocoa, 2 lb. of marmalade, 10 lb. of sugar, besides a few other things. He omits bacon, so beloved of the traveller in the American wilds, and altogether his scanty list makes one feel acute sympathetic pangs of hunger.

VI. Medical outfit.

Dr. Schuster includes a stethoscope, dental pliers, a small set of surgical instruments, besides many other things. One would feel compelled to get ill to test such a complete outfit.

VII. Photographic outfit.

This was revised by Dr. Henry Hoek and appears to be very practical.

VIII. Headquarters.**IX. Notes on marches, roads, bridges, transport animals, and local companions.**

Dr. Schuster strongly recommends stipulating that porters shall feed themselves, and he lays great stress on the worries which the traveller has often to put up with through the manoeuvres and tricks of porters and transport drivers.

X. Presents for local people.

Dr. Schuster mentions that presents in kind are often more appreciated than money, and gives a list of suitable articles.

XI. Pictures and photographs.

Dr. Schuster mentions of course the magnificent series of Sella photographs, some of which can be had with marked routes. Other series are those of Dr. Kuhfahl, Breitgasse 7, Dresden; of Herr Platz, Schellingstrasse 26, Munich; of Herr Max Herzberg, Neuenburgerstr. 37, Berlin, S.W. (postcards).

XII. Some routes through the Central Caucasus.**XIII. Maps of the Central Caucasus.**

Dr. Schuster of course mentions the 1-verst map as indispensable to the mountaineer, but he strongly recommends taking also the 5-verst map, which is now appearing in a very good and legible edition. The sheets covering the district are: G 5, D 5, E 5, G 6, D 6, E 6. A new guidebook in Russian, with maps by Trussewitsch, is announced.

A complete list of the maps in the 'A.J.' and the Proc. R.G.S., as well as in various other periodicals, is given, and attention is drawn to the maps in Baedeker's 'Russia,' 1914 edition.

There are very few travellers who have nothing to learn from Dr. Oscar Schuster, and he puts us all once more under great obligations for his very thorough review.

REVIEWS.

Alpinismo acrobatico. By Guido Rey. With numerous illustrations.
Pp. 314. Turin: 1914.

THIS is a book which every lover of the Alps *must* possess.

Written in the author's own charming and poetical style, it will more than bear comparison with any of the great Alpine Classics, and is a fit companion to *Il Monte Cervino*. No more perfect example of literature has ever appeared. Every page, whether of scenic description, the actual topography of some great climb, or the character study of an individual, is a truly flawless gem. No review of Cav. Guido Rey's great work can be adequately expressed in mere English, any more than the author's beautiful phrases and thoughts can be rendered into that language. *Alpinismo acrobatico* will stand for all time as an enduring monument to the most finished writer as well as one of the most experienced mountaineers the Alpine world can ever see.

The book is dedicated to Ugo de Amicis, worthy son of a famous father, the author's constant companion in the expeditions described. We quote these at full length: Grépon (traverse); Grands Charmoz (traverse); Requin; Petit Dru; Aiguille Verte (Moine arête); Winkler, Stabeler and Delago Türme (traverse); Catinaccio; Marmolada (S. face and traverse); Tschierspitze (traverse); Cima della Madonna (S. face and traverse); Cimon della Pala (traverse); Pala di San Martino (N.W. ridge). All these are illustrated by photographs, mostly by the author himself, although some are by his companions—all are admirable and of quite unusual interest.

The descriptions of these many ascents are remarkable for their versatility; the author succeeds in his own inimitable style in portraying the variety of characteristics of each individual mountain. Thus we are able, perhaps for the first time in Alpine literature, to *fully* appreciate the differences between the Aiguille Verte and the Grépon, the Dru and the Requin, or the Marmolada S. face and the Vajolett Türme. No one but the author could give utterance to the artistic and eloquent lines dealing with the aspect of the great Dolomites such as are contained in the chapter *Sul Catinaccio*, pp. 151–61; he compels these wonderful peaks to rise before us here in England as marvellously as they do from their own Trentino. Reading Guido Rey's magic pages we unconsciously live over again the days we have spent in their strongholds; surely no other writer has ever attained similar literary heights?

There is a most interesting character study of a well-known mountain adventurer . . . *una creatura delle Dolomiti*; . . . who shall be nameless in this review—he is not so in the text; many will, however, recognise him. The numerous desperate enterprises of this climber are briefly recounted, among others his feat of attaining the tooth known as 'La Guglia Edmondo di Amicis,' the summit

of which was only reached by the unorthodox method of climbing a neighbouring higher tower, thence throwing a rope down and over the said Guglia, followed by a hand slide along the rope, through space, on to the summit . . . *una delle più belle follie dell'Alpinismo* (pp. 168-76). This extraordinary man . . . *possiede una bella palazzina in stile nuovo ed una motocicletta* . . . (!).

Adventures are not wanting in these stirring pages: the author's party are benighted on the Petit Dru (1905), the ascent of the great S. face of the Marmolada (1910) is accomplished under the most difficult, not to say dangerous, conditions; yet, thanks to the obvious security of Cav. Rey's party, to their caution and mountaineering experience, nothing of mere sensationalism—so pleasantly different from many of the hysterical accounts published of the same climbs—is ever permitted to creep into the text. We realise that we are dealing with a description given by a real Mountaineer as opposed to a common cliff or boulder scrambler.

The poetry, the deep-rooted love of the Alps that ring through every page, we have already dilated on; it remains only to add that no one could wish for better accounts of the actual topographical details of each climb. Where all is so far above criticism it is hard to find a particular preference, but the chapters on the ascent of the Grépon (pp. 15-64), the bivouac on the Petit Dru (pp. 123-38), the exquisite *Intermezzo* (pp. 229-35), or perhaps the breadth and power of feeling so touchingly expressed in the few lines where the author impresses on his Dolomite leader the glories of the greater Alps (pp. 196-8), the nobility of thought and of mind so eloquently enunciated in the last chapter, will perchance appeal most to the student of this truly remarkable work.

E. L. S.

The Conquest of Mount McKinley. By Belmore Browne. With 4 coloured and 96 other illustrations and maps, and Appendix by Herschel C. Parker. G. P. Putnam's Sons. 1913. 15s.

SURELY no men more deserved the final success gained by their own persistent efforts and determination in the face of the greatest natural difficulties than the authors of this book and their companions.

That is the impression, mixed with the greatest admiration for that courage which compelled success, made on my mind by the perusal of this brilliant book.

The classic assaults which reduced our European mountains, the attacks made on other American mountains, even the work which up to the present has been done in attempting the conquest of any one of the Himalayan giants are not comparable to the three great systematic campaigns, as carefully organised as they were resolutely led, which resulted in the conquest of Mt. McKinley—the summit of the North American continent.

The first attack, to which the author was invited by Professor

VOL. XXVIII.—NO. CCIV.

R

Parker, was made in 1906 from the S. side. Dr. Cook, of subsequent North Pole fame, who had made a previous journey of reconnaissance in 1903, and Professor Parker were the organisers of the party, which included a pack-train of twenty horses, a motor-boat for use on the glacier rivers, and a full complement of packers, topographer, and photographer, all of them with experience of earlier journeys in the district.

Although a good pass over the Alaskan range was known to exist at the head of the Kichatna river, a tributary of the Yentna, Dr. Cook determined, for reasons that are still not clear, to attempt to find a new pass nearer to Mt. McKinley, the intention being to attack the mountain finally from the N. With this object in view the horse-party with light packs went westward to the headwaters of the Yentna river, a tributary of the Susitna, where they were to meet the launch-party, which carried most of the equipment and followed the river as far as possible, and then advance in force.

The start was made in May. The motor-boat was with great difficulty forced to the head of navigation on the Yentna river, the only people met with being prospectors—one of whom remarked 'If there were any gold on McKinley you'd find a camp there damn quick!' Another lone prospector drifting down stream was asked where Youngstown (the mining camp) was. Pointing to his boat he answered, 'Here in the boat with me—I'm takin' the burg down stream!'

The river was carefully mapped. The pack-train had not yet arrived, so Dr. Cook, Mr. Browne, and three others started off on foot up the W. fork of the river, leaving Professor Parker and another man in camp. They soon caught their first glimpse of Mt. McKinley.

After great hardships and difficulties—due to the icy water of the flooded river and to having constantly to traverse high up on the banks, where the river bed forbade progress—the party returned to camp after eight days' travel on three days' rations.

As soon as the pack-train arrived, having lost three horses en route, a new attempt was made to ascend the W. fork. The difficulties were again too great, and several times members of the party and horses were in great danger of drowning. The party accordingly returned to camp, and leaving the Yentna river they struck off to the N.E. Above the timber line the country changed to high rolling caribou hills, and after some days' hard travel they reached the Tokositna Glacier, on the E. side of Mt. McKinley. Climbing a high mountain W. of the Glacier, whence they had a magnificent view of the S.E., S.S.W., and part of the W. faces of Mt. McKinley, the explorers were compelled to admit that climbing Mt. McKinley from their camp—if feasible—would be a summer's task, since the intervening country was a tangled chaotic mass of rugged mountains and glaciers.

It would take too long here to follow the party on its adventurous return to the coast. Subsequently Dr. Cook, with the packer

Barrill and another man, ascended the Upper Susitna river and on his return claimed to have ascended Mt. McKinley. Mr. Belmore Browne's opinion of this claim is set out with great candour on pp. 70-73.

Their experiences had only whetted the appetites of Professor Parker and Mr. Belmore Browne for new attempts. They again decided to try the southern approach, first in order to test Dr. Cook's claim, and secondly in order to map that still unexplored side, whereas the N. side had already been mapped by Brooks. The starting point for the N. approach is Fairbanks, a considerable town on the Tanana river, 160 miles N.E. of Mt. McKinley, and from which place the mountain can be reached in winter with dog teams not without great trouble. This was the plan adopted by the party of stalwart miners under Thomas Lloyd, who in 1910 * succeeded in making the first ascent of the N. summit of the great mountain. I hope my friend Dr. Collie will remember my warning as to how far a gold prospector can be relied on to get when I once ventured to criticise his statement as to the inaccessibility of the Caribou mountains.

Accordingly, in 1910 the two explorers got together what was undoubtedly the best-equipped expedition from a mountaineering point of view ever organised in America. The party consisted of eight men, including Professor Cuntz, of Stevens Institute. Professor Parker advanced most of the expedition expenses, while Mr. Browne saw to the outfit and led the expedition in the field.

No horses were taken, reliance being placed on a more powerful motor-boat than on the 1906 expedition. After many difficulties, most graphically described, the boat carried them first up the Susitna and then up its main W. tributary, the Chulitna, until on May 31 a base camp was finally made on the Tokositna river, not very far from the farthest point of the 1906 expedition, about 37 miles from Mt. McKinley. A very interesting chapter follows, describing the arduous advance up the 'Big Glacier,' as many as twelve camps being necessary and over 1200 lb. of food and equipment being carried up.

Even with all this work they had only reached on July 7 the 'Big Basin' whence rose Mt. McKinley—15,000 feet of rock and ice.

After endless difficulties and dangers from avalanches and crevasses the explorers finally reached the 'Great Sérac' which leads to the only snow pass on the S.E. side of Mt. McKinley. They were, however, compelled to content themselves with the ascent of 'Explorers' Peak,' about 8000 feet.

On July 17 they returned to the 'Big Basin' preparatory to making an attack on the S.W. ridge of Mt. McKinley. But it was all no good, and after forty-two days on the ice retreat to civilisation once more was the order.

* Cf. *A.J.* xxv. 645.

But men like the author and Professor Parker take no denial, and they started immediately to plan a third attempt. It was obvious that the approach would have to be *finally* from the N. side, and doubtless the simplest way would have been to repeat the journey of the miners who ascended the N. summit in 1910. But our men were not simply peak-hunters, and stuck to their southern route so as to explore a magnificent mountain wilderness to the E. of Mt. McKinley that otherwise might remain unknown for years.

Their plan was to find a pass across the Alaskan range N.E. of Mt. McKinley, by which they could cross to the N. side for the final attack. One thing they decided to do was to make a winter journey with dog teams.

Accordingly two of their companions of 1910, Aten and La Voy, were commissioned to transport during the winter of 1911-1912 all the stores and outfit by sledge to a camp far up the Chulitna river and return to meet them at Knik. The two chapters on the episodes of the trail are among the best in the book.

Leaving Susitna Station, the last outpost of civilisation, on February 19, 1912, the party pushed on to their main camp. In place of the rushing waters of 1910 lay a smooth expanse of untrodden snow. I need not take the reader further, or tell how the gallant dog teams dragged their loads to a height of 11,000 feet; how the party made successive camps at 13,600, 15,000, 16,615 feet with the thermometer *inside* the tent at night 19° below zero! (so intense was the cold that none of the party could sleep over 15,000 feet); or how in one final desperate attack on the great ice summit dome—it was June 30, 1912—the party set the crown on their labours, reaching 20,300 feet. Beaten to the ground by the icy blizzard, they were finally compelled to turn close under the very highest point of the dome. Most men who ascend Mt. Blanc by the Dôme route or from the Grand Plateau imagine that they ascend the Dôme du Gouter. As a matter of fact they seldom do, as the actual summit of the great flat-topped Dôme is away to the N., although the difference of level is scarcely perceptible. I take it that the Browne-Parker party were as close to their goal as that, and I am strongly of opinion that they made a virtually complete ascent.

Has not Professor Herschel Parker told us the tale of their labours, their sufferings, their triumph in a paper in this Journal ('A.J.' xxvii. 189-195)?

No précis of mine can give an adequate idea of Mr. Belmore Browne's book. It is one of those rare books of travel that, if you have had ever so little experience of the wild, takes you along, makes you one of the party, till you share with its members their hopes, their fears, their hardships, their glories. One supreme virtue is the transparent candour of the tale. One great cause for satisfaction is that the work was all done by their own unaided efforts. When, as Mr. Browne relates, his 'waistline' decreased from 30 ins. to 23½ ins. in one month he must have hustled some.

The book is superbly illustrated by photographs by the author, Professor Parker, and Mr. La Voy, and by four reproductions of paintings in which the author shows himself as much the master with the brush as with the axe. The maps are good and make the routes very easy to follow—and so to Mr. Belmore Browne, author, artist, boatman, horse-master, dogteam-driver, hunter, explorer, mountaineer; to Professor Parker, your “pardner” on many a rough wilderness trail, to whose keen love of the mountains and indomitable resolution much of the initiation of these journeys and a full share in the success are due; and to your other staunch companions I respectfully raise my hat in warmest admiration of your deeds. You have indeed all played the man!

J. P. FARRAR.

Hannibal Once More. By Douglas W. Freshfield, M.A. London: Edwin Arnold. 1914. 5s. net.

THERE are some stories which age cannot wither nor custom stale. Of these is the story of Hannibal. In discussing the vexed and much-debated question as to the pass by which Hannibal crossed the Alps, Mr. Freshfield gives us the latest views which have approved themselves to him as a geographer and mountaineer.

We may say at once that Mr. Freshfield is not even now, after all the study which he has given to the subject, prepared to name a particular pass and say ‘This is the pass of Hannibal.’ He tells us in his preface: ‘The following pages do not pretend to offer a summary, or analysis, of recent attempts to elucidate the historical episode they deal with. They are rather an endeavour to treat the classical texts relating to Hannibal’s Passage of the Alps from the point of view of an Alpine traveller and topographer. In undertaking this task I have been impressed by the importance of a fragment of Varro which has come down to us, and by the curious way in which it has been either ignored, or what seems to me its plain meaning distorted and obscured, by most of my predecessors in this discussion. Incidentally I have been led to examine somewhat closely the arguments recently brought forward by several French military writers in their effort to prove that Hannibal crossed the Col du Clapier, a lofty and difficult by-pass near the Mont Cenis. I have been urged to do this by the fact that their theory has been adopted and put forward in this country by the Professor of Military History in the University of Oxford, Mr. Spenser Wilkinson.’

The fragment of Varro to which Mr. Freshfield refers is translated by him on p. 19: ‘The Alps * can be crossed by five passes, one near the sea, through the Ligurians; the second, by which Hannibal crossed; the third, by which Pompey went to the Spanish war; the fourth, by which Hasdrubal came from Gaul into Italy; the fifth, which was formerly occupied by the Greeks and is hence called the Graian Alps.’

* Varro is speaking of the Gallic Alps.

We regret that space prevents us from discussing this quotation. Mr. Freshfield thinks that there can be 'no legitimate room for doubt about the first and fifth; they can only be the Coast-road and the Little St. Bernard.' Mr. Freshfield thinks that there are conclusive reasons for assigning the Mont Genève to Pompey. Can we assume that Varro, in his catalogue, took all the five passes in their geographical order, beginning from the sea? 'Is it not the only plausible assumption?' says Mr. Freshfield. And he then suggests that we must look for a pass south of the Mont Genève for Hannibal, and one north of it for Hasdrubal. *Quid plura?* Hannibal crossed the Col de l'Argentière, and Hasdrubal the Mont Cenis.

The account which our author gives in his third chapter of the Vars-Argentière route is very interesting: to say that it is absolutely convincing would be going too far—farther than the author goes himself.

The question of the power and position of the Taurini is carefully and profitably discussed by Mr. Freshfield. Perhaps the most interesting of the points discussed by Mr. Freshfield is that of the identification of Turin as the chief town of the Taurini. His remarks on this subject (p. 51) are convincing. We regret that we have not space to reproduce the whole page. He declines to accept the identification. 'Some town,' he writes (p. 52), 'like Cavour, lying close to the foothills, and described by Promis as a natural fortress * raised four hundred feet above the plain, is far more likely to have served as the city of refuge of the Taurini.'

Mr. Freshfield thinks that the Vars-Argentière route, as far as the nature of the ground goes, satisfies the requirements of the classical narratives at least as well as any other pass. 'But,' he continues, 'on its physical features alone, I might hesitate to prefer it definitely to the Mont Genève. The decisive consideration to my mind is that the evidence for the Mont Genève being Pompey's Pass is overwhelming.'

The book is beautifully printed and well furnished with maps, and has seven illustrations; but, as its author remarks of one of the books to which he frequently refers in its pages, it 'unluckily supplies no index.'

XVII. *Jahresbericht der Alpenvereinssektion Bayerland.* München. 1913.

THIS report of the most active section of the great German-Austrian Club is of the very greatest interest. With a membership of about 560 the Section has to its credit for the bad year 1912 the astounding number of 10,741 expeditions, as the sum total of its members' work. Of course many of these are small, and about two-fifths are winter tours, but it also covers expeditions of importance in Mexico, in the Caucasus—the latest adherent of the Section being Prince Sunschew of Bezengi—and in all parts of the Alps. Herr Oberamtsrichter Eugen Oertel is to be warmly congratulated on

* Such as Laon.

presiding over and leading this band of enthusiastic mountaineers, among whom are to be found names that are known in all European climbing circles. The systematic list of expeditions makes great reading. The stupendous Lalidererwand was climbed (second ascent) by O. Herzog and G. Sixt, jun. Naturally the Kaisergebirge claimed great attention, the Predigtstuhl being twice descended by its S. arête, while Hans Dülfer, who, with W. Schaarschmidt, appears to be the most daring of the present young climbers, with the very brilliant guide Hans Fiechtl and a lady made the direct ascent of the W. face of the N. summit. As to the Totenkirchl, 120 members record ascents and another new route was made up the notorious W. face. New routes were also made up the Fleischbank and the Lärcheck, the latter extremely hard. Six members are noted as having ascended the St. Bartolomä face of the Watzmann; the N. arête of the Ödstein was again overcome—probably the third ascent; the S. arête of the Thurnerkamp was twice done; the Guglia received four visits; in the Geisler group several new routes were made; in the Rosengarten the Delago, Stabeler and Winkler Thürme were each traversed by fifteen members; a new route was made direct up the W. face of the Rosengarten, and the hard climb up the E. face was done by nine members; in the Primiero, Sexten, and Cortina districts several new routes were invented, and in fact hardly a single district in the Eastern Alps has escaped the fearless tread of these redoubtable Münchener. Then we come to the Western Alps, and here again the ascents recorded, though less numerous, are eminently respectable. Four members ascended the somewhat tiresome Lauteraarhorn, and two the little-visited Ochs. An old friend, the Bieshorn, has somehow got transported across the Rhone Valley into the Oberland, but appears to have been duly found and overcome. Herr Pfann made the first guideless traverse of part of the long Breithorn arête and the Col du Lion is mentioned as having been visited, but can scarcely have been crossed. The Section suffered no loss through accident, notwithstanding this tremendous activity. It may indeed be proud of the brilliant energies of its sons.

J. P. F.

CORRESPONDENCE.

THE TWIN SUMMITS OF ELBRUZ.

To the Editor of the ALPINE JOURNAL.

April 10, 1914.

SIR,—Mr. Raeburn informs me that in addition to the expeditions recorded in the last number of the JOURNAL his party climbed the eastern summit of Elbruz. This was (as far as I know) the second ascent, none having been made (or at any rate recorded in any western European publication) since that by my party (François

Dévouassoud, A. W. Moore, C. Comyns Tucker and myself) on July 31, 1868.

Last year, as Mr. Raeburn's photographs show, there was a great deal more snow on the mountain, and the rocks of the summit ridge—including doubtless our stoneman and bottle—were mostly buried. The main point of interest, however, in the recent ascent is that, as far as the party could ascertain without instruments, there was no perceptible difference in height between the western and eastern summits. As a rule in my experience a top of equal, or nearly equal height, seen from a neighbouring eminence looks to the observer loftier. And the Russian Survey gives the western summit an advantage of 123 feet, enough one would have expected to be very appreciable to the naked eye. In the Appendix to my 'Exploration of the Caucasus' I hinted doubts of this alleged difference, not from my own experience, for owing to a local mist we never saw the other top, but on the strength of the report of several of my friends who had stood on the western summit.

Mr. Raeburn's notes have led me to examine afresh the Government maps of Elbruz, of which I have a collection, with the following result. The triangle indicating the culminating point of the eastern peak is, as a rule, placed not on the highest portion of the horseshoe-shaped top, but on its extreme N.E. end. This may possibly be accidental, but in the first edition of the special physical map of Elbruz (1 verst scale), for which its author, M. Golovievsky, received a distinction from his Government, this mark is omitted altogether, while the height is given. Does this indicate any uncertainty in the mind of the cartographer as to the accuracy of the omitted indication? Is it possible that the Russian surveyors have measured a point on the summit-ridge of the eastern peak which is not its highest? Mr. Raeburn's party, having with them the latest map, had intended to make for this rocky N.E. heel of the horseshoe. Finding however the opposite, and at the time snowy, W. end seemed higher they went to it and found themselves looking down on its rival. They estimated their superiority at 100 to 150 feet.

I write now to express my hope that the next climbers of either summit of Elbruz will by means of a spirit-level do their best to settle this matter. I would further suggest that a similar step should be taken with regard to Tetnuld and Gestola. It is very difficult to me to believe that Gestola is the higher summit, and S. Sella's panorama from Elbruz confirms my scepticism. It may appear bold to question surveyors' determinations, but in the case of peaks measured from bases on opposite sides of a chain discrepancies often arise, as has been shown over and over again in the Alps in the Italian, French, and Swiss surveys.

I am, Yours faithfully,

DOUGLAS W. FRESHFIELD.

PROCEEDINGS OF THE ALPINE CLUB.

A GENERAL MEETING of the Club was held in the Hall, 23 Savile Row, W., on Tuesday evening, February 3, 1914, at 8.30 P.M., the Hon. Mr. Justice Pickford, *President*, in the Chair.

The following candidates were balloted for and elected Members of the Club, viz. Captain H. M. Battye, Mr. Colin Grant Crawford, Lieutenant Kenneth Mason, Mr. John Alfred Spranger, and Mr. Henry Hewitt Worsfold.

The PRESIDENT said: Before I call upon Mr. Malcolm Ross to read his paper I should like to draw your attention to one or two matters which I think ought to be mentioned to the Club.

The first is an announcement that the late Mr. Adams-Reilly's original Mont Blanc sketches belonging to the late Mr. C. T. Dent are now on view at the rooms of the Royal Geographical Society. I have no doubt that many members of the Club will be glad to have the opportunity of seeing these.

The next announcement I have to make, and I fear it is not an uncommon one, concerns the members who have died since we last met here.

First on the list is a very old member of the Club, elected as long ago as 1861. I refer to Mr. Frederick Morshead. He was a great climber in his day, and he made several first ascents. In 1863 he made the first passage of the Furgenjoch, in 1867 he made the first ascent of the Jägerhorn and crossed the Jägerjoch; in the same year he made the first ascent of the Lyskamm by the S. arête; and in 1877 he made the first ascent of the Nord End by the N.W. arête.

I cannot, I grieve to say, speak of him personally, but I believe I had the pleasure of meeting him once. He was known chiefly to the older members of the Club, and will be missed by many here.

I have had one or two communications from members of the Club in regard to his mountaineering exploits, and they all seem to lay stress on his unfailing good temper and cheerfulness, no matter what or with whom he was climbing. He was very fast on the mountains. I do not exactly know the number of hours in which he went alone from Chamonix to the top of Mont Blanc and back, but the time was surprisingly short.

His interests were not confined to those of a mountaineer, as many of you know. He spent a great part of his life as a master at Winchester, and he was twice Mayor of that city. He took the greatest possible interest in his scholastic and municipal duties, and he was presented with the freedom of Winchester in recognition of his services to the city.

I am not sure, but I believe it is a fact that the Club had desired him at least on one occasion to be their President, and the Club was the poorer when he declined the honour for reasons which were no doubt satisfactory. He also declined the Vice-Presidency, but served on the Committee in 1872-74.

The next member whose name I have to mention was not quite so old in his membership, having been elected in 1877. Sir F. F. Cullinan, K.C.B., was educated at Trinity College, Dublin, and was in the Chief Secretary's Office, afterwards resident clerk in London of the Irish Office, and subsequently, until his retirement in 1911, Principal Clerk in the Chief Secretary's Office in Dublin. He was a very active mountaineer for several years, and made many first ascents. He made the first ascent of the Aiguille de Talèfre in 1879 with the Hon. Gerald FitzGerald and the late Mr. J. Baumann. In the same year, with Mr. Baumann and the guides Emile Rey and Josef Moser, he made the second ascent of the Higher Aiguille du Dru on the same day (August 29, 1879) that three Chamonix guides, led by Jean Charlet, afterwards Charlet-Stratton, made the well-known ascent of the Lower Aiguille.

In 1878, with the Hon. Gerald FitzGerald and the guides Peter Knubel and Josef Moser, he made the first ascent of the Täschhorn over the N. arête from the Domjoch.

He had also ascended most of the great peaks at Zermatt and in the Oberland, and was a very active member of the Club.

The third name on my list is that of Mr. R. N. Arkle, of whom I can speak with a great deal more personal knowledge than I can of either of the others, as I climbed with him and his brother, the late Dr. C. Arkle, for several years. He was a very good climber, but I do not know that he made any record first ascents. Probably one of his biggest expeditions was the third crossing of the Domjoch. Of the first four parties who made this crossing, two were benighted, and although Arkle's party was more fortunate it was a very near thing. He was a most interesting companion, being a man of very considerable ability, as his career at Oxford shows, and of very wide reading. He was a very active member of the Club and constant in his attendance at its Meetings. He was also one of the regular supporters of the Informal Dinners and Meetings when they were first instituted. Of late his health had not permitted him to take an active part in the affairs of the Club, but so long as he was able to do so he took the greatest interest in all our doings. He was a very regular visitor to the Alps, and had climbed most of the principal peaks in the Swiss, French, and Italian Alps.

I have one other announcement to make which refers to one of our late Presidents. Perhaps I ought to say that I am very glad to see him here to-night, but in another sense it makes my task a little difficult to perform gracefully. I have no doubt that you have all seen that our past President, Mr. James Bryce at that time, has been honoured by His Majesty with promotion to the rank of Viscount. I thought that the Club would not like an honour of that kind to pass without some mention of it at the first opportunity after it had been conferred upon him. I think we are all proud of his honour, because it is an honour he has well deserved, for services which the country has recognised, services of distinction

in literature and politics, and last, but not least, services in diplomacy. I had thought of asking the Club to request me to direct the Honorary Secretary to convey our heartiest congratulations to Viscount Bryce on the high honour conferred upon him, but as we are happy to have him with us this evening it will, I think, be better if I ask you to express our congratulations to him by acclamation here and now.

Mr. MALCOLM ROSS then read a paper on the New Zealand Alps entitled 'A Climber in a Far Country,' which was illustrated by lantern slides.

The PRESIDENT said: I believe there are several members here who have visited the region described by Mr. Ross in his paper. I am sure we should all like to hear what Mr. Claude Macdonald has to say.

Mr. CLAUDE A. MACDONALD said: Mr. President and gentlemen, I am sure, after the splendid pictures we have seen of the New Zealand Alps, there will be a general rush of some of our younger members to New Zealand to capture some of the virgin peaks which are waiting for the explorers. In addition to these numerous peaks, a great number of the valleys there are absolutely untrudged. New Zealand is one of the finest countries in the world and has tremendous possibilities, and in addition to the mountaineering it offers it has some of the best fishing to be had anywhere and most excellent shooting. The people there are most hospitable, and I hope, after seeing the excellent photographs Mr. Ross has shown us, some of our younger members will make up their minds to give the New Zealand Alps a trial. I have had the good fortune to spend several seasons out there, and I used to go up into the mountains to get out of the hot weather in the summer. I have used all the roads which Mr. Ross has shown us, and his description of them is certainly not exaggerated. They are, however, building a new hotel there for the accommodation of mountaineers, and with a motor conveyance one can travel up to 100 miles a day very comfortably.

I am sure we are all very much indebted to Mr. Ross for reading such an interesting paper and for showing us such excellent slides.

Mr. R. S. LOW said: I don't know that I can add anything to what Mr. Ross has said about the region described in his paper. My first season in New Zealand was spent on the Eastern side of the Alps, and I had a most delightful time. For my second season I went to the Western side, of which Dr. Teichmann showed the Club some very fine views when he lectured here last year. The approach to the climbing on the Western side is very much harder than on the Eastern side on account of the dense semi-tropical bush. The views shown by Mr. Ross and by Dr. Teichmann must have given you a much better idea of what the New Zealand Alps are like than any description of mine could.

The Rt. Hon. VISCOUNT BRYCE said: When I had the pleasure of visiting New Zealand I was unfortunately prevented from reaching

the mountain region that has been the subject of Mr. Malcolm Ross's paper, which we have so much enjoyed. It was mid-winter, and neither on the West nor on the East side could the glaciers be approached. Still I was able to see enough both of the volcanic mountains of the North Island and of the hills and valleys of the South Island to get an impression of and be able to appreciate the peculiar charm of the scenery in New Zealand. I do not know exactly what it is that gives it this charm, whether it is the extraordinary clearness of the atmosphere or the scantiness of any signs of man's presence, but I am rather inclined to think that it consists largely in the character of the vegetation, which is unlike that of any other country. The lower mountains of New Zealand up to 8000 feet have some of the features of Switzerland and some of the features of Scotland, but they are really diverse from both. The great lake of Wakatihu, which is certainly one of the grandest I have ever seen, is surrounded by lofty and extremely steep mountains, and reminds one a little of the upper part of Loch Lomond, but it is on a far larger scale.

I should certainly advise all our members who have time for so long a trip to go to New Zealand, whether they desire superb rock and snow climbing, or content themselves with the enjoyment of noble landscapes. The forests have a character that is all their own, and the deep gorges full of luxuriant tree-ferns are magnificent. Besides the delights of mountaineering there is excellent trout fishing to be had, and I was told of anglers who come all the way from India or even from England regularly every year for six weeks' fishing. Some large tracks have been stocked with red deer, which seem to thrive and multiply, and I rejoice to say that no attempt is made to shut up the hills over which they rove against the pedestrian, be he artist or botanist or angler; so whoever wants to shoot may have the satisfaction in New Zealand of feeling he is not selfishly interfering with the pleasure of others who enjoy Nature without any wish to take life away from her creatures.

Perhaps you will allow me to express my sincere thanks to you, Sir, for the very kind terms in which you have referred to the honour conferred upon me, as I desire to thank my fellow-members most warmly for the congratulations they have expressed to me. From no quarter could any such expressions be more welcome than from my friends of this Club, to whose goodwill I owed an honour I prize as high as anything that has ever come to me—the honour of having presided for three years over them.

Will you allow me, Mr. President, to refer briefly to one whose name you mentioned earlier in the evening, our late member Mr. Frederick Morshead? I knew him at Oxford before he had joined the Club, and we kept up our friendship for many years afterwards. He was, as you observed, for many years at the head of one of the largest houses at Winchester, and it was probably his high sense of his duties to the pupils in his house which prevented him from accepting either the Presidency or the Vice-Presidency of the Club,

both of which were at one time and another offered to him. He doubtless felt, being a very conscientious man, that he could not hope to give due attention both to them and to the work of an office in the Club. I never had the good fortune to climb with him, but what you have said about his exploits as a mountaineer is entirely borne out by the records of the climbs he made. He was remarkably active, alert and vigorous, wonderfully quick and nimble both on rocks and on snow, and I believe that he and his friend Dr. Hornby, late Provost of Eton, made a record in the time within which they reached the top of Mont Blanc from Chamonix. He was a singularly attractive and deservedly popular character. No one could know him without becoming fond of him. He has left a memory at Oxford and Winchester to be cherished with affectionate respect.

The PRESIDENT said : I think we should all like to pass a very hearty vote of thanks to Mr. Malcolm Ross for his most interesting paper. I think his crossing of Mount Cook is an undertaking that most of us can hardly realize. It is a remarkable piece of work.

We had hoped and expected to have the High Commissioner for New Zealand with us this evening, as I had been told he has devoted a great deal of time to exploration in that country and thought that he would like to be present to hear what Mr. Ross had to say. I regret to say, however, that he was unable to come. He has sent me a letter and finishes up with some words that I should like to repeat to you, and I think you will all agree that the words are well-founded. He ends up by saying 'Mr. Ross has done splendid work in New Zealand, and he is one of the best sportsmen I have met.' I think those words are fully justified, and I ask you to pass a very hearty vote of thanks to Mr. Ross for his paper.

The vote of thanks was carried with acclamation, and Mr. Ross briefly returned thanks.

A GENERAL MEETING of the Club was held in the Hall, 23 Savile Row, W., on Tuesday evening, March 3, 1914, at 8.30 P.M., the Hon. Mr. Justice Pickford, *President*, in the chair.

Mr. A. A. Pearson, C.M.G., was balloted for and re-elected a member of the Club.

The PRESIDENT said : I am sorry to say that I have again to call the attention of the Club to the loss of two of our members by death, since we last met.

I have no doubt that you have all seen the recent reports in the newspapers of the death of the Earl of Minto. It is not my intention to say anything about his public career, as you may all read this for yourselves, but I should like to say a word or two about his career as a mountaineer, with which we are more particularly concerned here. He was a member of the Club from 1866 to 1869, but he then retired, and was not re-elected until 1905. He was quite recently Viceroy of India, and while there he was always anxious to do anything that could be done for members of this Club

and other persons interested in mountaineering in that country. As I have already said, he was only an active climbing member during the years 1866 to 1869, but he did some good climbs in that time, and amongst others he made the third ascent of the Schreckhorn in company with the late Mr. Horace Walker. This was the first ascent by the Great Couloir. On that expedition he was also accompanied by the well-known guide Johann (Hans) Jaun, and his name is the first which appears in Jaun's book.

That, I think, is practically all I have to say about him as a member of the Club.

I have no doubt that many members will recollect that he was a sportsman in many other directions apart from mountaineering. Fishing and shooting were among the sports to which he devoted his spare time, but he was probably better known as a keen hunting man and steeplechase rider in his younger days. During his steeplechasing career he won the Grand Prix d'Auteuil. During his residence in India he did all he could to encourage the game of polo, of which he was a great admirer. In every sense of the word he was an all-round sportsman.

The other member, a very much younger member, whose death on Mount Cook we were all of us grieved to see recorded the other day, was Mr. S. L. King. I have not any very exact information in regard to the accident at present, but the last information we received was contained in a telegram to the High Commissioner for New Zealand in this country. It reads as follows:—

‘Wellington, February 26.

‘Have found body one guide fearfully mutilated in snow: enormous avalanche apparently overwhelmed Mr. King and two guides. Have given up all hope finding bodies of King and other guide. Actual location catastrophe hitherto regarded as quite safe, although dangerous spot further on. This is first fatal accident Mount Cook. Search party had had time (and have) made every effort find other bodies. Please express sincere sympathy with relatives behalf Government.’

It appears to have been a real accident, not resulting from any want of precaution, and one of those accidents which are inseparable from any form of sport. I had not the advantage of knowing Mr. King personally, but a friend of his has communicated to me some matters regarding his career, and in one sentence he very aptly describes the type of man Mr. King was. He says:—

‘He was one of the best of good fellows, the sort of man that I never heard say an unkind word about anyone.’

Although he was a man of somewhere about forty, he continued to play football for the Casuals, and, as his friend says, he was quite as useful as any of the younger members of that team. He was, as Lord Minto was also, a good, keen all-round sportsman.

These are the only matters to which I myself have to call your

attention, and I will now call upon the Hon. Secretary to present the accounts of the Club for 1913. I am glad to say that they are very satisfactory and show quite a pleasing balance.

The Hon. Secretary and Treasurer (Mr. C. H. R. Wollaston) then presented the accounts for 1913, and proposed their adoption. This was seconded by the President, and after one or two remarks by members present the accounts were unanimously adopted.

Dr. A. F. R. WOLLASTON then read a paper on 'Mountaineering in Dutch New Guinea,' which was illustrated by lantern slides.

The PRESIDENT said: I am afraid not all of us have been to New Guinea, but I have no doubt that there are many points in this very interesting paper to which some members would like to allude. I am very glad to say that we have with us this evening Major Rawling, who was one of the English party that made a previous expedition to New Guinea. I am sure we should all like to hear what Major Rawling has to say about Dr. Wollaston's expedition.

Major RAWLING said: I am sure no one in this room to-night has derived as much pleasure as I have in listening to Dr. Wollaston's exceedingly interesting paper. He and I were comrades on the previous Mimika Expedition, despatched from England for many purposes, not the least of which was to reach the snows of Mount Carstensz. In this particular endeavour we completely failed, mainly through taking the wrong river as our line of advance. Where we failed Dr. Wollaston has brilliantly succeeded. I cannot endorse too strongly the splendid success of his work; splendid it certainly is, as only those who have struggled through the swamps and ravines of that uncomfortable country know too well. Nature has here placed every obstacle in the traveller's way: an abominable climate, great physical difficulties, swarms of noxious insects, an impenetrable forest, and a savage race of men. Courage of the highest order is required to beat down these opposing natural forces, and perfect tact is necessary to master the savage tribes and thus to command their respect and assistance. His organization was as nearly perfect as possible, a point which is only too often lacking in expeditions which leave the shores of Great Britain. Dr. Wollaston went out perfectly prepared to succeed, and he has succeeded. Although he did not reach the actual summit of Carstensz, none will be more pleased than you, Gentlemen, and particularly myself, when, as I understand it is contemplated, he returns to the scene of his recent labours and completes the work he has already begun.

The PRESIDENT said: I had hoped that some members present would be able to offer a suggestion to Dr. Wollaston as to how best he could avoid the flooding of his tent which he mentioned, and I am sorry to think that no one can give him any assistance in regard to that matter. I suppose the fact is that we all feel he knows much more about these things than we can possibly tell

him. I will, therefore, ask the Club to pass a very hearty vote of thanks to Dr. Wollaston for his extremely interesting paper. It is pleasant to hear of a new country, but I doubt if any of us have realized the great labour entailed in organizing and carrying out such an expedition. Although he did not get to the top of the mountain, he obtained great and unqualified success in the way of exploration, the difficulties and dangers of which, one cannot help feeling, must have been a great deal more than he has told us. He has minimized these difficulties, but we were better able to realize how great they were when he told us the time it took to get from one place to another even with all the preparations he had made and the excellent help given by the Dyaks and friendly natives he had secured, and I think every member of the Club who is here has been very much interested in the paper, and must have admired the way in which the difficulties encountered by the expedition were surmounted.

The vote of thanks was carried by acclamation, and Dr. Wollaston briefly returned thanks.

A GENERAL MEETING of the Club was held in the Hall, 23 Savile Row, London, W., on Tuesday, April 7, 1914, at 8.30 p.m., the Hon. Mr. Justice Pickford, *President*, in the chair.

Mr. George Trench Western was ballotted for and elected a Member of the Club.

The PRESIDENT said: I regret to say that I have again to interpose between the Club and the reader of the paper to call the attention of the Club to the deaths of three of our Members.

One Member, Mr. JOHN SMYTH-OSBOURNE, was elected as long ago as 1872. He climbed a great deal some years ago, but of late years he has not climbed very much. He was very well known in North Devon as one of the best class of resident landowners, studious to promote the welfare of his tenantry, also a good sportsman, and a supporter of country sports and country pursuits of all kinds.

Mr. G. T. AMPHLETT, whose death has recently been reported to us, was a younger Member of the Club though an old climber. Most of his climbing was done in South Africa, where he was an official of the Standard Bank of South Africa. He had done a great deal of climbing in that country, and at the time he was elected a Member of this Club he was serving his second term as President of the Mountain Club of South Africa. He had only just retired from his business career, and was on his way to Europe, where he proposed to revisit the Alps, when he succumbed to an attack of malignant malaria.

Another Member whose death it is my painful duty to report, but of which I have only heard since entering this room, is Mr. P. A. L. PRYOR. He was elected in 1893, and he died only yesterday. He had done a great deal of climbing, I believe, partly with our senior Vice-President, Mr. Broome, and Mr. F. W. Newmarch,

in the Dolomites, Dauphiné, and other parts of the Alps, and he continued his climbing up till about two years ago. Having heard of his death so recently I am afraid I cannot give you many particulars as to his career, neither, I regret to say, can I speak of him personally; but as both Mr. Broome and Mr. Newmarch are here, I have no doubt they will be able to tell the Club more about him than I can.

I should like also to mention to the Club that Mrs. Morshead has given to the Club a wood carving of her husband, the late Mr. Frederick Morshead, by Melchior Anderegg.

MR. E. A. BROOME said: Mr. President and Gentlemen, I have only heard of the death of poor Pryor within the last five minutes, and I am really so taken aback that I am afraid I can only say a word or two about him. He and I had done a great deal of climbing together in all parts of the Alps, and perhaps in the Dolomites (to which he first introduced me) more than any other part of the Alps. He was a splendid mountaineer, a good rock-climber, and a cheerful companion. He had had bad health for many years past, and I did not know that he was climbing so recently as two years ago. I feel his death very keenly, and I may mention that his initials, although they were P. L. to others, were L. P. to my party, signifying 'Life Preserver,' as he really saved my life on one occasion—I think in 1896. Had it not been for his resourcefulness at that time, I should not have been here to tell the tale. I feel his loss greatly, and I am sure his loss will be felt by the whole Club. Besides myself and Mr. Newmarch, I believe he also climbed a great deal with Mr. Harold Beeching.

MR. F. W. NEWMARCH said: I first made the acquaintance of Pryor as a climber at Easter, I think 1891, when he was a member of a party led by Kesteven. We did not climb together in the Alps until some ten years later. Before that he had made many good ascents in the Dauphiné and the Dolomites. He and I made a number of guideless expeditions together, chiefly in the years 1905-10. We did nothing very arduous, but had pleasant days on such peaks as the Adamello, Ortler, Weisskugel, etc.

We made a sporting ascent of the Tödi, sleeping in a shepherd's hut in the absence of the accommodation which the landlord at Disentis had led us to hope for at Chalets in the Rusein valley. We also made a sporting ascent of the Piz Buin by an unusual route. Pryor was a fast goer. It was his last day in the Alps that season, and he ran down off the mountain to the Wiesbadener Hütte and to Patenen, catching a vehicle there and arriving at Bâle the same evening. Pryor shewed at his best on a mountain. He was a first-rate companion on an expedition. He loved the mountains and keenly appreciated their beauties, whether seen from the top of a great peak or from a minor pass. He possessed in a high degree the qualities of a true mountaineer, and the Club has sustained a real loss by his death.

Mr. J. H. CLAPHAM then read a paper entitled 'Cross-country Gleanings in 1913,' which was illustrated by lantern slides.

The PRESIDENT said : I am sure some Members of the Club will have some observations to make upon what certainly was a very interesting, and I think, considering the weather last year, remarkable performance. I don't think I know of an adjective strong enough to express last year's weather ; it was such that I won't characterise it, but I am sure we are all glad to know there were some persons who derived some enjoyment in 1913. I rather think that we have several members of the party with us this evening, Mr. Muir and Mr. Werner, and I am sure we should all be glad to hear any observations they have to make.

Mr. J. C. MUIR said : I do not know why I should be called upon to add anything to the paper we have just heard from Mr. Clapham, as I was the most insignificant member of the party, and, as a matter of fact, I was so unfamiliar with the district that a fortnight before we started I really did not know whether Modane was in Italy or France. Therefore I think you can dispense with any further remarks from me.

Mr. C. A. WERNER said : I do not think I have anything to add to the paper from the point of view of technical mountaineering, but I should like to endorse the view that a great deal more pleasure can be got out of a tour similar to the one we took than a tour worked out in every detail with the aid of irreproachable guide-books, as in a great many ways one loses more by knowing too much about the route than one gains, and I think myself that a deal of enchantment is added by not knowing the route.

Mr. J. J. WITHERS said : Anyone who cares for the pleasure of finding one's own route cannot do better than visit the district which has been the subject of the paper this evening, as certainly the maps of the district north of Modane are most terribly deficient. The country is most beautiful and quite unspoilt. The accommodation, especially in the Chalets, leaves much to be desired.

The PRESIDENT said : As no other Member seems to have any novel views to add upon the mountains of this district or the accommodation which is to be found with someone who, I believe, is called Charles the Rotter, or anything further to tell us with regard to what particular delights are to be found in those Chalets, I think there is nothing more to be done but for me to propose a very hearty vote of thanks to Mr. Clapham for his admirable and interesting paper and the excellent photographs he has shown us. I have derived great pleasure from this paper because it concerns a district with which I am acquainted. I am sure you will all join with me in giving a very hearty vote of thanks to Mr. Clapham for his paper.

The vote of thanks was carried with acclamation, and Mr. J. H. Clapham briefly returned thanks.

THE ALPINE JOURNAL.

AUGUST 1914.

(No. 205.)

MOUNTAINEERING IN 1855.

BY SIR JAMES HENRY RAMSAY OF BAMFF.

(Written at the time.)

Cold on his midnight watch the breezes blow
From wastes that slumber in eternal snow.

CAMPBELL.

‘**A** LLEZ, Monsieur, ne craignez pas, le temps s'arrangera et nous irons.’ I was in the little Piedmontese village of Courmayeur gazing rather woefully at a black squall of wind and rain which starting from the southern face of Mont Blanc swept down over our heads through the narrow gorge of the Dora Baltea, when these words of encouragement were addressed to me by a wiry fresh-coloured man of about forty, dressed in a red and white striped blouse and straw hat.

The expedition to which he alluded was no less than a fresh attempt on the hoary monarch of mountains from the Italian side, in which my interlocutor was to play the part of chief guide. Nor was it without reason that I was anxious and suspicious about the weather: hope deferred they say maketh the heart sick, and sick I was of waiting. Thirteen days had elapsed since this excursion had been arranged, and the weary interval had been spent in eager expectation without the guides, till now, ever thinking the weather such as would justify a start. However as we *were* to start on the morrow, and as evening was drawing near, preparations

VOL. XXVIII.—NO. CCV.

T

were at once vigorously taken in hand. The *restaurant* was ordered forthwith to get ready two to three days' 'provende' for the inner man—veal, alas! was all these regions could supply—while for the outer man, my summer kit was reinforced with a pair of blue spectacles and some cotton underclothing; such luxuries as gloves, woollen socks, or veils being far beyond the reach of Courmayeur. However a guide was to furnish me with a pair of gaiters *pro tem.*, and my boots were thickly garnished with the proper hobnails for the snow. I was in tiptop walking condition, and retired to rest careless of anything but foul weather. Half-past three brought the heavy tramp of a guide to my door; not that I needed rousing, as the hebdomadal orgies wherewith they consecrate the Sabbath in these parts had effectually deprived me of sleep. A party of noisy boors below had made a 'heavy night' of it, and I had not had time to fall asleep since they ceased. It was refreshing to rise, so I dressed in haste, and ran down to the trysting place, where a busy and exhilarating scene saluted my eyes. Guides rolling the blankets, making up their packs; one taking a ladder to pieces, another loading the pony which was to go part of the way; while ropes, axes, grappling irons, and alpenstocks lay scattered around. My knapsack, containing extra clothing and provisions, was stowed on the pony's back, I hastily discussed some veal cutlets, and with a wild parting halloo, the company defiled down the street at 5 A.M., Monday, July 30. We were seven, myself and six guides—to wit, Joseph Marie Chabod, the leader and planner of the route, better known by his *sobriquet* of 'Turin,' Pierre Mochet, Alexis Prémont, Alexandre Fenoillet, Joseph Marie Chabod, jun., cousin to 'Turin,' and last, not least (except in stature), Joseph Marie Perrod.

A queer picturesque set they were, with blouses of sundry colours and such 'caubeens' as I had not thought to find out of old Ireland. One man, Mochet, the strongest and best walker of the party, a chamois-hunter, looked the picture of an Irishman, tall, swarthy, of enormous bone, with a true laughing Irish eye. He met everything with a joke; hunger and thirst, cold or fatigue were alike set at defiance by this light-hearted son of the mountains. He wore a Newmarket coat and suit of grey frieze: at each man's side hung a capacious gourd 'To hold the liquor that he loved,' and Fenoillet, as if to give relief to our *ensemble*, beamed in a 'cut away' of the brightest red. Three-quarters of an hour brought us to the foot of the Mont Fréty, the first stage of our ascent.

Here I discovered that a guide who had undertaken to procure me some wine of a quality superior to that usually sold in the Hôtels had neglected the commission, so that I found myself dependent for drink on eleemosynary contributions from the guides' bottles, which however they offered with the greatest readiness.

The object of our expedition had been noised abroad, and as the discovery of this 'North-West passage' had long been a subject of deep interest at Courmayeur we were greeted with the good wishes of all who saw us pass. We begin by ascending a steep zigzag path through larchwood, up which the active little pony signalises his pluck, picking his steps amid gnarled roots and surmounting the slopes by a series of animated 'spurts.' At last it became too much for him, and we were obliged to transfer our impedimenta from his back to our own. Here perhaps the reader acquainted with the ways of Chamonix ascents may ask where our porters were. Sir, we had none, the guides were unwilling to reveal the path, in case we should succeed, to more persons than they could help, and as they undertook to carry up everything I should require, I consented to an arrangement which materially spared my purse.

Big Mochet flung my knapsack on the top of his huge pack, which contained a blanket, extra clothing, a coil of ropes, rations for three days, all the rounds of the ladder, with an axe stuck through the straps: each half of the ladder was slung round a man's neck, which he carried for half an hour at a time, and so we toiled on, up our weary way, the sun beaming brightly on us over the mountains of the Great St. Bernard. In the evening we were to see him sink behind the Jura. At 7.30 we halted on the last piece of grass, beside the last spring, and here the guides breakfasted, as they had not eaten anything before starting.

We were on the summit of a vast mound or bank, rising over 3000 feet from the valley, and probably composed of *débris* which kind Nature had heaped up at the foot of the mountain so as to reduce a precipice to an easy slope, and to afford access to the formidable heights above.

From this point a steep slope partly covered with snow led us up to a mountain of rock somewhat resembling a huge pyramidal buttress which stands out between two hollows, each sheltering glaciers that seem ready to precipitate themselves on the valley beneath. The summit of this rocky pile is the Col du Géant, nearly 11,000 feet in height.

After an hour's rest we shouldered our knapsacks anew, 1 as well as the rest this time, and advanced up to the rocky steep ; I have already compared it to a pyramid. Our path followed one of the angular corners of the mass, and up this ridge we climbed, now leaning on our poles and now hauling ourselves by our hands through fissures and over live masses of rock, while often we had much difficulty in avoiding the loose stones rolled down by those in advance. The way was enlivened by the sight of avalanches, and still more by packs of loose stones which got occasionally set in motion on the neighbouring glaciers, babbling and clattering down their headlong course, but all the time like well matched hounds 'carrying a capital head.' The weight of our burdens made the ascent very laborious, and we were right glad to reach the top of the Col and to halt on the spot celebrated as having been occupied by the hut where M. de Saussure lived eighteen days for the purpose of making meteorological observations. Here we got the first of that series of splendid views which form the great attraction of this way up Mont Blanc. Unfortunately the horizon was cloudy, which spoiled the appearance of Monte Rosa. Snowy mountains to produce their proper effect absolutely require the background of a clear blue sky.

We halted on the Col for an hour, from 1.30 to 2.30 P.M., and there we dined, and after that made all snug to encounter the snow, of which as yet we had crossed but little, owing to the steepness of the rocks ; but as we here bade adieu to *terra firma*, if I may so speak, we put on our gaiters, a somewhat lengthy process, as they reach up to the knee over the trousers and are carefully fastened with twine round the ankle and heel and over the instep to prevent the intrusion of the searching particles of snow dust.

Leaving the Col we fairly entered the Arctic regions of the interior, and after crossing a low ridge we found ourselves on a sloping plateau some three miles across by four or five in length. Low down on our right lay the *Jardin*, and the way to Chamonix across the Mer de Glace ; our own way lay to the left across the upper ranges of a mighty glacier which were still deeply buried in snow. The mountain range here assumes somewhat the aspect of a mighty rampart with walls and towers on either side ; thus overlooking Courmayeur we have the ridge of the Géant and some nameless peaks, and overlooking Chamonix the lofty and fantastic Aiguilles de Charmoz ; between the two lies a wide plateau deeply sunken in the centre over which extends the main portion of the Mer de Glace. This hollow we

were traversing obliquely in a N.W. direction on our way to the Aiguille du Midi, a lofty pile of rock, part of the rampart overlooking Chamonix. At first our path was tolerably level, but after some three-quarters of an hour we found a deep valley before us with a sunken gully in the midst, not unlike a watercourse, all of course covered with sheets of snow, unbroken, save where a pale green crack revealed the depths of some treacherous crevasse. We now fastened on our ropes and slowly and cautiously descended. The necessity of this mutual system of life insurance, which we adopted in all descents, was abundantly evidenced by the leader every now and then falling through the snow as he traversed the hidden crevasses, leaving a gap in the path for his followers to surmount with the help of their alpenstocks. After descending for nearly an hour the leader of the file halted on the brink of the gully aforesaid, a narrow, ugly looking trench, the bottom of which I from the rear could not descry. After a few moments' hesitation Mochet gently vanished over the brink, without mishap; the second man shortly followed; and in a few minutes we were all safely landed at the bottom, some twelve or fifteen feet down. This terminated our descent, all the rest was to be uphill.

Emerging from the ravine up a steep bank we sat down to rest awhile on the ladder. The scene was truly grand. Not a sight of life, whether animal or vegetable; deathlike stillness reigned over the frozen slopes, enclosed all round by chains of ruddy granite peaks, unpolluted either by rain or lichens, and indeed fresh 'as on the morning of their birth.' These effectually excluded every sight or sound which could remind one of the world beyond; and over all the sun shed a flood of golden light which obliged us to have recourse to our spectacles to save our offended eyes. Altogether it was the most striking scene I ever witnessed.

Our upward march from this point was slow and broken by many halts, as our burdens told heavily amid knee-deep snow.

We ascended northerly at first and then westerly, till at 6.30 p.m. we found ourselves at the S. foot of the Aiguille du Midi, our destined sleeping-place, where, as anticipated, we found an exposed patch of ground, a little plateau, clear of snow, close to the brink of a precipice which drops down on the Grands Mulets. Our elevation was not less than 10,000 feet; we were in a gully between the Mont Maudit and the Aiguille, and the wind was blowing strongly from the W.: hitherto

we had been in perfect shelter, as we ascended from below to the foot of the Aiguille, but on reaching our plateau we met at once the full fury of the blast, which swept through the elevated gorge in which we were to pass the night. My clothing consisted of a summer suit, with a flannel shirt and a pair of drawers to fall back upon in my knapsack. The reader will not be surprised that in a moment I was seized with a chill that numbed me throughout, my hands and feet lost all sensation, and with a shudder I asked myself how *could* I survive an entire night of it. I took a large gulp of brandy, huddled on my extra things and joined the guides who were collecting stones to make a wall as a shelter from the blast; the work soon restored my circulation, and in a little while we had a break-wind of about two feet high erected at an angle with a rock. The sun was just setting in all his glory, but human nature was in no condition to enjoy views, and we all hastily lay down side by side with our backs against the rock or the wall and our feet in the middle, the blankets just extending over us singly: the wind whistled through the ill-joined stones, yet a slight but delicious feeling of warmth crept over one, and I do not remember ever feeling more thankful for a downy couch than I did for this rude bivouac. I felt that 'all was right.' Still my feet were wet and numb, but a guide lent me a pair of woollen stockings which I put on instead of my own moist integuments, and my boots were stowed in the warmest nook of our common couch to prevent their freezing. It had been resolved to start at 2.30 A.M., but the cold was so great that uninviting as our couch was we were content to huddle there till 5, when the sun was more fully up, and then after a hasty breakfast of bread and meat and brandy we started, taking in our pockets as much provision as would last till night. Two lofty ridges had to be crossed before we could effect a junction with the Chamonix path on the Calotte or main summit of Mont Blanc. The first of these, the Mont Blanc de Tacul, lay close at hand; so crossing the gully we began the ascent. Here one of the guides, who had shown symptoms of giving in the day before, lay down and refused to go any farther. Our way up the snowy slopes of the Tacul took us diagonally across its face overlooking some rather awkward precipices which fall on the Bossons Glacier below the plateau on which we slept. The snow was soft and in places rather dangerous from its loose thawy state. Three hours' climbing brought us to the top, whence we had a splendid view over all Switzerland, the lake of Geneva peeping

between the heights of the Brévent on the other side of the valley of Chamonix.

After a short rest we descended into the hollow that separated us from the Mont Maudit, the chief obstacle in our route, a hill which had never yet been ascended to its summit. This also presents a ridge of snow some 1500 feet high, so steep that I wondered how the snow in places could rest at such an inclination. Unlike the Tacul the surface was frozen hard, and obliged us to have constant recourse to the axe. For $2\frac{1}{2}$ hours we toiled up step by step, when we arrived at the crowning difficulty, a crevasse faced by a perpendicular wall of frozen snow some seven feet high, with a terrible increase of gradient up to the summit.

We rested awhile on the edge of the crevasse, the only resting-place the hill afforded. Two more of the guides declared themselves too fatigued to proceed, so Mochet, Perrod, Fenoillet and myself proceeded without them. Fortunately the crevasse or bergschrund was much filled with snow, and so they were able to hew a path up which we crawled obliquely across the little icy wall, and then they cut steps straight up to the summit. This slope was so steep that I could see the soles of the boots of those above me, their toes seemed barely to stick into its frozen surface. Every step was taken with the greatest caution, and with an almost mechanical uniformity of procedure. The trusty staff was first implanted firmly in the snow on a level with the chest; grasping this close to the ground we raised each foot a step (the notches were cut in two rows alternately) and then steadied ourselves by the left hand while shifting the pole. The same manœuvre was exactly performed by all, even the poles being successively inserted in the same sockets, which were not very easily pierced through the frozen snow. All these precautions fixed the attention and prevented any rash looking behind one, which even otherwise I avoided with a steadiness that Orpheus might well have imitated. The two who had remained behind eagerly watched our progress, encouraging us in their *patois* with cries of '*Corrasio ! Faites vi corrasio !*' One of them eventually followed and overtook us. At last we found ourselves on the top of the Mont Maudit, separated by an easy descent from the Mur de la Côte, the so-called 'wall' at the foot of the Calotte, down which a large party from Chamonix were at that moment descending. We stared at each other in silent astonishment, as such a *rencontre* was indeed unprecedented. The appearance of the long black file winding down the waste of snow was very striking, though

the size of the men seemed greatly diminished ; they looked no bigger than ants, an optical effect which I attributed to the total absence of small objects in the landscape as standards of comparison. We met at the foot of the Mur de la Côte, and the guides exchanged a few civilities, the Chamonix men being anxious to hear if we had not found our way very dangerous ; they viewed our success not unnaturally with little satisfaction. Our people, one of whom was bleeding at the mouth and nose from fatigue, answered, perhaps a little boldly, that we could have brought up a carriage and four ! British reserve prevented any communication between the *voyageurs* on either side. I subsequently heard that they were a colonel in the Guards and an Irish gentleman.

After the Mont Maudit the terrible Mur de la Côte gave little trouble, especially as the track was there all ready made for us. We began ascending the Calotte, the final stage in the ascent, in a most piercing wind which terribly seized my nose, ears, and gloveless hands ; the day however was splendid, the sky cloudless, and the eye lorded over a prospect which reached from the Cottian Alps to the Black Forest ; Monte Rosa and the mighty Cervin boldly asserting their supremacy over a crowd of lesser peaks sunk in insignificance beneath our feet. To the W. stretched the seemingly boundless plains of France, in the centre of which the Puy de Dôme showed like a purple molehill.

Suddenly the guides, who had already made some objection to going on, positively refused to do so, alleging the lateness of the hour (2 P.M.). They declared that we must return at once in order to reach our resting-place by daylight. My protests were all in vain, and I was reluctantly obliged to turn when supposed to be within half or three-quarters of an hour of the top, perfectly fresh, and after having overcome every difficulty. I would almost have pushed on alone, and trusted to overtaking the others, had it not been for the Mont Maudit which I dared not descend by myself : however I consoled myself by the reflection that we had done all that was any way novel or exciting, having surmounted the obstacles which had hitherto been thought insuperable, while the piece left undone would make a distinction more nominal than real. Vain delusion ! I had yet to learn that in the matter of first ascents nothing but absolute success counts.

Arrived on the brink of the Mont Maudit we fortified ourselves with a morsel and a drop of brandy, fastened on the ropes, and then I found to my comfort that we were to descend

with our faces to the hill, as down a ladder. This mode of motion at once dispelled my misgivings, as I felt that caution and steadiness were all that were requisite for a safe descent. For two hours we descended the steps like crabs crawling backwards, and so safely reached the bottom of the Mont Maudit, having observed precisely the same *modus operandi* as described in the ascent.

Mounting to the top of the Tacul we dropped the unhappy ladder which had been dragged to the bergschrund without having been of the slightest service : the descent was accomplished in about an hour, recourse being occasionally had to our old retrograde motion ; all glissading was out of the question, the snow becoming loose and the path descending obliquely with precipices beneath us on one side. To reach Courmayeur that night was out of the question, but as the guides declared they would do anything rather than encounter another night where we spent the last, as there was plenty of daylight still it was determined to go to the Col du Géant to try the accommodation there. The return across the snow-slopes of the Glacier du Plan and Mer de Glace was most enjoyable. Our adversary the wind was hushed, and the setting sun, gilding the peaks around, presented a scene which I were wrong to attempt to delineate myself when I can borrow words so truthful and so expressive.

Each purple peak, each flinty spire
Was bathed in floods of living fire.

Where twined the path in shadow hid
Round many a rocky pyramid,
Shooting abruptly from the dell
Its thunder-splintered pinnacle,
The rocky summits split and rent
Formed turret, dome, or minaret ;
Or seemed fantastically set
With cupola or minaret,
Wild crests as pagod ever decked
Or mosque of eastern architect.

Lady of the Lake, I. xl.

It was past sunset when we reached the Col : the mountains of the Great St. Bernard and of the Vale of Aosta stood out cold and majestic against the sombre sky. I looked up fondly at the summit of Mont Blanc with which we had so lately held familiar intercourse, but the Monarch had already resumed his distant stateliness. Meantime the guides had selected a

resting-place and were summoning me to my couch, a shelving stony slope on the edge of a precipice just wide enough and long enough to accommodate three men lying abreast. I pulled off my soaked boots, as on the previous night, and lay down between two of the men with a blanket over us, my feet just projecting over the uncertain abyss. The others nestled around singly in their blankets, like cones in the rocks.

We had lain thus for about three hours when through a sort of half slumber I heard Turin beside me ask Mochet what he thought of the moon. Wondering how he could disturb us at that time to discuss so superfluous a subject I hugged the blanket closer, but Turin having received some smothered answer called out aloud, '*Allons, mes enfans, levez vous !*' 'Get up ?' growled I to myself incredulously, 'what the deuce does he mean ? I shan't get up.' However he shortly repeated the command and rose himself. On my asking what on earth he wanted he replied 'that they were cold and were going to descend the Col.' I faintly submitted that it was not cold. 'Possibly not, Monsieur, for you in the middle but it is for us outside.' This was unanswerable, so I got up sulkily and shook myself. 'Well, possibly it *is* chilly, ah, no wonder, I see we are in a mist.' That mist I soon found was literally 'All my eye,' as those organs were beginning to suffer cruelly from the combined effects of wind and snow glare, nor were my companions much better off. We had somewhat foolishly neglected to use our spectacles except when momentarily inconvenienced, and we paid the penalty.

'*Courage, Monsieur !* We shall soon be down on grass, where we shall have a soft warm bed and water to drink, and everything.'

This last point struck home, as since we left the spring the previous day at 8 in the morning I had not had one tumbler full of liquid, for which frozen snow forms at best but a doubtful succedaneum; many find their thirst aggravated by it. Fortunately I had not suffered from that chiefest of torments, thirst, and in that respect the guides were I believe worse off than I was; however, at the word of water I felt that I could drink. It was past 11, the moon had just risen but was obscured by clouds, and its faint light was entirely absorbed by the black mass of rock we had to descend. I looked down the way we had mounted, but what with the dimness of the light and my own semi-blindness I could distinguish little beyond the reach of my alpenstock, the obscurity which concealed the real steepness of the crags leaving memory assisted by the imagination to fill up the blank. I was cold and stiff

from a day of 15 hours' walking in snow; altogether things looked so unpromising that I burst out laughing, and asked the guides if they were in the habit of descending the Col by night. Some answered that they had already done it and in worse weather. 'But do you often take travellers?' 'Ah! *par exemple, jamais!*' For more than two hours we clambered with hands and feet down the rocks, bending our heads to our toes at every step to explore the darkness below, occasionally taking soundings in more obscure recesses with the alpenstock. At last we reached a spring on which we rushed like fainting Bedouin. Largely we availed ourselves of its icy waters for the refreshment both of the inner and outer man, alternately moistening our clay and anointing our eyes, though these in my case poured forth two unbidden fountains of their own worthy Job Trotter himself or his dismal cousin. After drinking we were enabled to eat, and then descended till we came to grass where we all lay down in a row 'cheek by jowl.'

By daybreak, about 4.30, the party was again astir. On being roused, to my surprise I found my eyelids resisted all attempts to open them, and they remained effectually darkened till carefully laved at the spring, and relieved from the encumbrances that had accumulated in less than three hours' time: even at that early hour the admission of light caused considerable pain. But this and the peeling of my face were the only consequences I had to complain of, the fatigue I experienced being really inconsiderable.

All were in the highest spirits at the success of our enterprise, as there remained but three hours down a regular path to Courmayeur, which we reached at 8. We halted at a little inn half a mile outside the town to organise a triumphal entry the guides had resolved on, and to refresh ourselves with some bread and mulled wine which we greatly needed. A messenger was despatched for the band of the National Guard, and for a flag; he was also instructed to get ready the '*mortaretti*,' rude cast-iron mortars like boys' cannons, the never-failing accompaniment of an Italian *festa*, from Courmayeur to Calabria. When all was ready I was summoned down to the yard where the 'band,' a lady violinist and a guitar man, were playing an animated fantasia. The chief guide 'Turin' stepped up to present me with what he called '*Le drapeau du Mont Blanc*,' a red cotton handkerchief tied to an alpenstock, but I loudly protested that I never *could* deprive him of that honour as it was through his courage, &c., &c. We adjusted our spectacles on our swollen eyes, the musicians struck up their boldest tum-

ti-tum, and we marched off, two and two, heralding our advent 'with hark and whoop and wild halloo.' It was perhaps to be regretted that none of the guides were married men, so that we had no touching greetings from anxious wives and tender babes, no sturdy Andromache coming to salute her Hector, which would undoubtedly have added great pathos to the scene, and afforded an opening for a little genuine unhackneyed sentiment which I fear at present my story rather lacks. However, there was a fair turn-out of *gamins* and morning water-drinkers, who one and all testified the greatest satisfaction at our success. A salvo of *mortaretti* greeted our entry into the narrow ill-pitched lane which constitutes Courmayeur, and the chief guide commanded a halt as we were at the door of an hotel, 'L'Union.' Entering the yard we formed a circle with the 'band' in the centre who dropped their 'tum-ti-tum-tum' and played some more complicated air. Here we remained in position some ten minutes receiving the congratulations of the superannuated waiter and the saucy girl that constitute the entire *personnel* of this worthy hostelry.

In this manner we perambulated the town stopping at all places of public entertainment, *cafés* and *cabarets* not excepted. At last we reached the Albergo Reale, the most comfortable quarters in the place, where the hospitable landlord dragged us into a parlour, and had half a dozen of the best white Asti wine foaming in tumblers in no time. This was succeeded by some red wine which so exhilarated the guides that they forthwith extemporised a triumphal war dance, brandishing their poles, and screaming like maniacs : while I throughout all these painful proceedings subdued my risible tendencies and maintained the true dignity of a 'lion' with the help of a constantly ignited pipe. Worthy Boniface, who really was a good fellow, would not release us till we could drink no more, when to my dismay we were pounced on by him of the Angelo who would not be outdone by his rival of the Albergo Reale. Accordingly a table was set out on a piece of grass at hand, wine flowed, the guides danced afresh, the traveller smoked, and the *mortaretti* roared incessantly as a vent to popular excitement which had now reached its height. Eager questioners crowded around, from whom I learned in return that we had been seen with telescopes on the Calotte, though they had been much mystified by seeing a large party descending and then a small one ascending (first those from Chamonix and then us) ; in fact there had seemed to be a grand gathering up there.

Dreading a continuance of these orgies I seized the first opportunity of escaping, not feeling in the humour for a carouse, and most men will, I think, allow that on an empty stomach, early in the morning and after three hours' walking, a little wine goes a long way. I retired to my room where my faithful glass revealed the swelled and blackened features of a drowned man come to life : however, a sound nap and warm sulphur bath, followed by a substantial meal, soon restored my forces.

In conclusion, I may express my gratitude for the civility shown me by an Irish gentleman here and by all the Piedmontese assembled for the water. I may notice in particular the kindness of a Madame Gallini, a total stranger, who, hearing I was confined to the house by my eyes, most handsomely sent me a present of a veil, a comfort I had in vain attempted to procure.

Three days later I shouldered my knapsack and tramped my solitary thirty miles to Martigny, the first stage on the way home.

Fifty years later I crossed the Col du Géant with two daughters. Where the guides and I lunched we found a comfortable restaurant ; where I slept on a rock we found a comfortable hotel filled with climbers from all parts of Europe.

THE FIRST ASCENT OF THE OBER-GABELHORN.

BY THE LATE A. W. MOORE.

Printed from his MS. 'Journal of a Tour in the Alps of Switzerland and Piedmont in June and July 1865.'

[THE party consisted of A. W. Moore and Horace Walker, with the guide Jakob Anderegg.

In the short space of ten or twelve years which covered his active service Jakob Anderegg appears to have exhibited qualities which, on his death at Meiringen on September 17, 1878, at the early age of fifty-one, in a half-page obituary notice in the *ALPINE JOURNAL* (vol. ix. 120) brought from Mr. A. W. Moore, undoubtedly one of the greatest amateur mountaineers of his day, the following testimony: 'Great physical strength and a keen mountaineering instinct combined to place Jakob Anderegg in the front rank of pathfinders. . . . It is as a companion and a friend no less than as a guide that his

loss will be deplored and his memory cherished by all who knew him.'

He appears to have been too much the 'Engländerführer' to have given to his compatriots much or any opportunity of appreciating or even knowing his qualities and powers, and no notice of his death or career seems to have been taken in the Swiss mountaineering publications.

The fact that as early as 1865 a guide could be found willing, single-handed, to lead two amateurs, however good, on the first ascent of a great peak like the Gabelhorn stamps the man as possessing that self-confidence and courage—call it rashness if you will—without which no guide of even greater technical powers can be adjudged the very highest rank.

Although in public estimation Jakob Anderegg's reputation seems to be overshadowed by the wider opportunities which favoured the great powers of his famous kinsman, Melchior, he appears to the close student of his performances to deserve almost or quite an equal place.

We are permitted to print the following estimate of Jakob Anderegg's powers by a well-known member of the Club who had the opportunity of seeing him at work, and whose experience of many of the great guides of the last forty years enables him to form the soundest possible judgment :

'In his prime he undoubtedly had, and thoroughly deserved, the reputation of being one of the crack guides of the Alps—in the very first half-dozen, I should say. He has been described as "enterprising to the verge of rashness." He was of magnificent physique and a brilliant ice-man as well as a fine rock-climber. He began his career rather late in life (in 1864) as second man to his cousin Melchior, and in that year he took part, in addition to the first ascent of the Rothhorn from Zinal, in the ascent of the Jungfrau from the Roththal and in the *descent* of Mont Blanc from the Dôme du Goûter by the Gl. du Dôme to Courmayeur. In 1865 he travelled with Moore and Walker *alone*, and amongst other things made with them the first ascents of the Ober-Gabelhorn, and of the Piz Roseg and the second passage of the Sesiajoch. He also took part in the first passages of the Ebenefluhjoch, Schmadrijoch, and Agassizjoch in 1866. In 1869 with Messrs. Horace Walker and G. E. Foster he crossed for the first time the Dom Joch and Nadeljoch, and descended the face of the Aiguille du Midi. In 1869 he also made the first ascent of the Gspaltenhorn with Mr. Foster and Hans Baumann.

'Subsequently his chief employers were Messrs. Still and Pratt-Barlow, with whom he made new ascents of the Grand Paradis and the Disgrazia. Later on again he travelled with M. Henri Cordier (with either Andreas or Kaspar Maurer as second guide), and made in 1876 the first ascent of the Aiguille Verte from the Argentièrre Glacier, as well as the Finsteraarhorn by the S.E. arête, but I believe that on the Verte Hans Jaun was the moving spirit and led the party.

'I think that there is no doubt that he *was* amongst the front rankers—but rather of the Ulrich Lauener than the Christian Almer type. I don't think his knowledge of the varying conditions of snow was so superb as Melchior's or old Christian's, and he was also probably rather unduly enterprising, at any rate in his younger days, in his dealings with snow and ice, if he were in command of the party. (Cf. the account in "A.J." ii. of the descent to the Glacier du Dôme, which I have just looked up.) But certainly a great guide in his day and generation—that is to say in the decade 1864–1874.

'There is a short "In Memoriam" notice of Jakob by C. E. M[atthews] in "The Pioneers of the Alps," but no portrait. He would of course have been included in the book itself had he been alive at the date of its publication.']

Wednesday, July 5, 1865. Weather fine.

WALKER took his mother and Miss Barratt up to the Gornergrat this morning, which I passed in writing letters; this duty performed I strolled up to the Riffel, and established myself on a neighbouring hillock, where I sat for a long time contemplating the Gabelhorn. This peak, 13,863 feet in height, with the exception of the Matterhorn the only remaining first-class summit near Zermatt not yet climbed, was the next item in our programme. It rises just behind the village, at the point where the great ridge, which, circling round from the Dent Blanche to the Weisshorn, encloses the head of the Einfischthal, changes its previous west and east direction for a somewhat northerly one. On the Zermatt side the mountain shows a precipitous face above the southern branch of the Trift Glacier, to which in later editions of Dufour's map the distinctive and appropriate name 'Gabelhorn' Glacier has been given.

What we could see in descending from the Sesiajoch yesterday had led us to believe that the best line of attack would be by the Gabelhorn Glacier, and the ridge at its head which

joins the peak to a nameless summit * to the north of it, marked on the map 3910 mètres—12,829 feet. My examination now confirmed this view, though it was impossible to judge of the character of the rocks at the head of the glacier, and whether their ascent would be feasible.

We all went down to Zermatt together, and, after dinner had the satisfaction of welcoming Mr. and Miss Walker who, with Melchior, arrived over the Moming Pass from Zinal—a route which Whymper and I made last year for the first time; their passage was the second. In order to give ourselves every chance on the Gabelhorn, we resolved upon a very early start. Walker and I therefore retired at 9.30, lay down upon our beds without undressing, and at 11.30 rose again for breakfast!—rather a misnomer.

Thursday, July 6. Weather fine.

We started at 12.20 on a lovely night, the moon, nearly full, shining with unclouded brilliancy, of which, however, we did not get the benefit at first, as our path up the gorge of the Triftbach was in shadow. The track is both steep and rough, but not really bad going, and soon took us to the comparatively level ground which lies behind the cliffs immediately above the valley; from here the view of the entire chain from the Mischabelhörner to the Breithorn, a long line of silvery peaks and glaciers, was of most exquisite beauty, as a moonlight effect surpassing anything within my recollection.

Keeping up the valley which is closed by the Trift Glacier, we picked our way over the stony waste which lies below the latter, crossed the stream from it at a favourable point, and at 3.15 got on to the terminal moraine, which higher up became the medial moraine between the two branches of the glacier, the Trift on our right, the Gabelhorn on our left. This, which made a very rough and unpleasant pathway, we followed, with one divergence on to the ice for a few minutes, until 4.5, when, having reached a point where there was a decided break in its continuity, and it seemed expedient to take to the Gabelhorn Glacier for good, we halted for breakfast.

A perfect night was by this time succeeded by a perfect morning, and a gorgeous sunrise which could not have promised more favourably for the day to come; the colouring was magnificent, and such as one sees only upon quite exceptional occasions. At 4.35 we took to the ice, which was so steep as

* Now known as the Wellenkuppe.



Moshead. Piren. Moore. George. Stephenson.
 Melchior. Macdonald. Palmer.

Chamounix, 21st July, 1863.

to require a little step-cutting, but luckily soon became more level; by our manœuvres we had circumvented the terminal ice-fall; the central ice-fall, which is both steeper and more broken, had next to be attacked. The glacier leading up to this had a curiously undulating surface, suggesting a strong inclination on its part to break into crevasses; we steered to our left, and, in that direction, got through the fall with little actual difficulty, but not without a casualty—Jakob's axe fairly got the worst of an encounter with a peculiarly tough sérac, and broke off short in the handle; for the rest of the day he used Walker's whenever necessary. The plateau above the upper ice-fall is seamed by huge crevasses; one gigantic chasm in the névé, stretching nearly right across from one side to the other, threatened to stop progress altogether, and made a very wide détour to the north necessary before a practicable bridge was found. The cirque at its head is fine; on the south is the ridge extending from the Gabelhorn to the Unter-Gabelhorn which separates the basin of the Trift Glacier from that of the Zmutt; on the north is a similar ridge which radiating from the nameless point marked 3910 mètres, divides the Gabelhorn Glacier from the Trift Glacier proper; while, to the west, in front, these two ridges are linked together by a line of precipitous cliffs whose highest point is the Gabelhorn itself.

We were now better able to form a judgment of the character of these cliffs; this was, on the whole, satisfactory, and by them it seemed quite possible to get on to the ridge at very nearly the lowest point between the nameless peak and the Gabelhorn, provided an awkward snow cornice could be passed. The most promising course appeared to be to take to the rocks at the extreme south-west corner of the glacier under a sort of snow col at the eastern base of the final peak, and then traverse the face of the latter in a northerly direction until a practicable line of ascent on to the desired ridge was found. But for the cornice the appearance of the place was not at all alarming.

In accordance with this plan we bore to the left up a steepish slope of snow intersected by a series of bergschrunds one above another, got on to the rocks without trouble, ascended them a little way, and then at 7.55 stopped for rest and refreshment in a position out of danger from falling stones which, right and left, were rattling down rather freely. At 8.20 we moved on again, ascending diagonally across the face of the mountain, of which the summit, showing as a double tooth of rock, was

straight over our heads as we sat in our resting-place. This traverse required care, but could not be called difficult, as the cliffs, although steep, gave good hold for hands and feet; accordingly we mounted quickly and were soon close to the snow curtain which crowned the ridge, and was obviously the abrupt edge of névé slopes covering the mountain on the other, or Zinal, side. This was about thirty feet in height, and as nearly as possible perpendicular. Now that we were on the spot, the actual lowest point in the ridge proved to be the least accessible, and Jakob elected to try and get up to the left, *i.e.* a little nearer the peak, at a point where a patch of rocks below the curtain gave us a tolerably secure base of operations. On these rocks Walker and I secured ourselves as firmly as possible, while our gallant leader made his difficult and dangerous way up the snow-wall; we watched his proceedings in silent anxiety, and our joy may be imagined when after a desperate struggle he stood on the ridge, and announced not only that he was 'ganz fest' but that the prospect ahead was good. For us to follow in his steps even with the help of a taut rope was not easy—at least I did not find it so—and we could only wonder at the strength and activity which had enabled Jakob to get up by his own unaided exertions.

At 9.25 we were all together on the ridge, looking down upon and across the Zinal Glacier. On our left an irregular arête of rocks led up towards the summit of the Gabelhorn; for some distance the rocks on the Zinal side were marked by a steep slope of hard snow running down towards the glacier at a vast depth below; along the face of this slope, Jakob proceeded to cut steps a little underneath the edge of the arête, until it became necessary to take to the rocks themselves of the final peak. These proved firm and good, but were broken into huge smooth slabs which required cautious climbing; the work could not be called easy, and at one or two points was decidedly the reverse, but there was never any doubt as to the practicability of the way. The last bit was excessively steep, so we left our axes to await our return and climbing without them, nearly hand over hand, reached the desired summit at 10.45. As we did so we heard distant shouts apparently from the direction of the Trift-joch, evidently intended to attract our attention, and coming from people who saw us; we could ourselves see no one, but learned afterwards that Lord Francis Douglas, after making two unsuccessful attempts on the mountain from Zermatt, was this day crossing to Zinal to try the peak from there, and that the cries we heard

proceeded from him and his party, to whom our appearance must have been a disagreeable surprise.

The summit of the Gabelhorn is a ridge about fifty yards long, running almost north and south. From it project three rocky points of which the northern is the lowest by a few feet. The central point on which we were is the real summit, the southern one being very little lower; adhering to the face of the rocks composing the latter was a lump of snow (the remains probably of a much larger mass) which had been blown up by the wind so that it very slightly overtopped the true summit. When standing up, we looked well over it, but when sitting down it was a little above us. We did not go to it, as it completely overhung the precipice on the Zermatt side, and would evidently give way if trodden upon.

That we showed discretion in this will be understood from what befell Lord Francis Douglas' party who reached the summit next day from Zinal; his account may best be given in his own words, found amongst his papers after his terrible death on the Matterhorn little more than a week afterwards; a more marvellous escape was probably never recorded.

'Left Zinal at 2.30 and reached the foot of the Gabelhorn at 6 o'clock. Halted 30 minutes for breakfast. Left at 6.30; and at 8.30, after traversing some steep slopes and cutting our way up some walls of ice, we arrived at the base of the rocks leading to the summit. In some places those rocks, intermingled as they are with steep ice-slopes, presented greater difficulties than I have ever yet encountered. It took us 4 hours to mount these, and we arrived at the summit at 12.30 (10 hours including rests). There we found that someone had been the day before, at least to a point very little below it, where they had built a cairn; but they had not gone to the actual summit, as it was a peak of snow and there were no marks of footsteps. On this peak we sat down to dine, when, all of a sudden, I felt myself go, and the whole top fell with a crash thousands of feet below, and I with it as far as the rope allowed (some 12 feet). Here, like a flash of lightning, Taugwald came right by me some 12 feet more; but the other guide, who had only the minute before walked a few feet from the summit to pick up something, did not go down with the mass, and thus held us both. The weight on the rope must have been about 23 stone, and it is wonderful that, falling straight down without anything to break one's fall, it did not break too. Joseph Viennin then pulled us up, and we began the descent to Zermatt.'

It is only fair to say, in extenuation of the guides' imprudence, that if, as is likely, their line of ascent led them direct to the snow peak, its true character may not have been so obvious as it was to us approaching from another direction.

While Jakob was engaged in building a stone man on the northern point of the ridge where more material was available than elsewhere, Walker and I studied the view in a state of unmixed content. Except to the north, where the Weisshorn and Rothhorn—not in themselves very attractive from this side—shut out the most important part of the Bernese Oberland, the panorama was unobstructed and embraced everything from the Tödi to Mont Blanc. The Matterhorn, on the other side of the Zmutt Glacier, towered up grand but not graceful, and, to all appearances, utterly inaccessible. Of other single peaks, the Dent d'Erin, Dent Blanche, and Grand Combin were the most conspicuous; the latter, in particular, looked well.

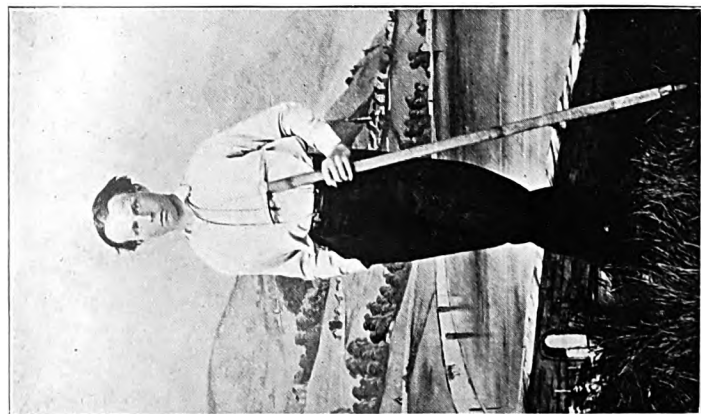
At 11.35, after a stay which a delicious temperature and a total absence of wind rendered more than usually agreeable, we commenced the descent, Walker leading while Jakob brought up the rear. We reached the Col at 1 o'clock, and found the rocks much more difficult than they had seemed to us on the ascent; looking from above, the passage of the snow-wall on to the rocks below the ridge seemed very formidable; in fact it was not really so except to Jakob who had to come down last; Walker, held up, reached the rocks without actually causing any strain on the rope; I, less skilful, was for a moment entirely supported by it, as the snow gave under my feet; Jakob descended in a manner peculiar to himself without any extraneous aid. The traverse to the foot of the rocks, like the passage of the arête, was less simple than it had seemed in the morning, and required very cautious going indeed; while crossing one of the couloirs by which the face of the mountain is furrowed, a slab of ice yielded to Walker's weight, and he was fairly on his back; luckily we were on the look out for anything that might occur; the taut rope at once checked our friend's descent, and he recovered his footing immediately.

At 2.30 we were once more at the base of the peak, and rested in our old nook for 25 minutes before beginning the scorching and rather tedious descent thence to Zermatt. Of that descent there is little to be said, as we followed generally our morning's route without incident, except that on the upper plateau, where the snow was very soft, Jakob was more suddenly and completely immersed in a crevasse than I could have

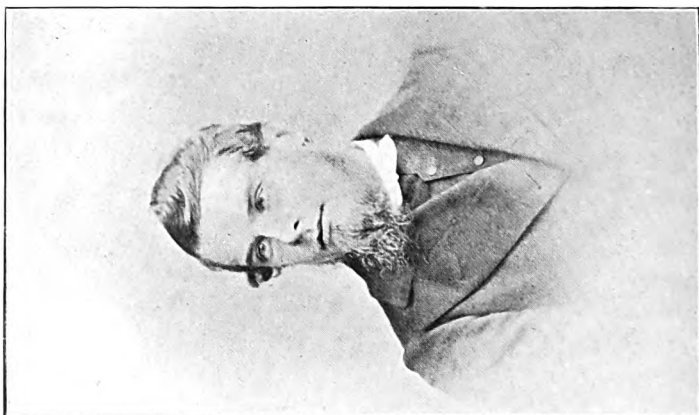
2.
by
me

be
le
of
on
his
er
y
be
ot
of
ad
at,

a
e,
it
ad
on
II
on
e
y
t
;
t
y
I



LORD FRANCIS DOUGLAS,
1847—1865.



JULIUS MARSHALL ELLIOTT.
1841—1869.

thought possible ; without the slightest warning he disappeared, like a man falling through a trap—a contingency to which the leader of a party is liable, but which I had never before seen actually occur. He was, of course, soon pulled out again. Lower down we kept longer to the glacier, and avoided the moraine as much as possible, though we were driven to it at last ; by 5.25, however, we were not only clear of it, but also over the torrent beyond, which cannot, in the afternoon, be crossed at all points. From its further side we took a final look at our peak, which showed well, and then made the best of our way down to Zermatt, where we arrived at 7.20, after an absence of 19 hours exactly, and one of the most glorious and successful days of our Alpine experience.

THE SECOND ASCENT OF THE MATTERHORN BY THE EAST FACE.

By JULIUS MARSHALL ELLIOTT.

(Reprinted from a Brief Memoir of him in the Library of the Alpine Club.)

[J]ULIUS Marshall Elliott* was born at Brighton on October 24, 1841. His father was the Rev. Henry Venn Elliott, who was a first cousin of Leslie Stephen's mother, a Miss Venn. (The Venns were great people at Clapham in the days described by Thackeray in 'The Newcomes.') His mother was a Miss Marshall, aunt of J. A. Garth Marshall, who was killed on the Brouillard Glacier in 1874 ('A.J.' vii. 110).

He was educated at Brighton College and Trinity College, Cambridge, ordained in 1865, and succeeded his father, who died in 1865, at St. Mary's Chapel, Brighton, and was there till his death.

He was a great Lake District walker ; discovered in 1864 the now ordinary route up the Pillar rock with A. J. Butler and others, and once started from Wastdale Head and walked over Scafell, Scafell Pikes, Great End, Green Gable, Kirk Fell, The Pillar, The Steeple, and Yewbarrow, returning to Wastdale Head in 8½ hours.

He was killed on the Schreckhorn on July 27, 1869. Franz

* We are indebted to Mr. A. L. Mumm for much of this information.

Biener, the leading guide, still survives, at a great age, in Zermatt. The party had reached the foot of the final arête, which, at that time and for many years after, was gained by ascending a steep slope of hard snow or ice, since called the 'Elliott's Wängli.' The party was, it is stated on Elliott's own insistence, not roped.* In making a spring from the ice slope to the rocks which the leader had already gained, Elliott missed his footing and slid, at first slowly, down the slope on the Lauteraar side and was killed. But for losing his axe, Biener is of opinion that he would certainly have stopped himself. There is an interesting reference in 'The Alps in Nature and History' (240) :

'Early in July 1868 the present writer [Dr. Coolidge] met, in the Gleckstein cave on the Wetterhorn, Mr. Julius Elliott (who was killed next year on the Schreckhorn). In the course of conversation Mr. Elliott revealed, almost under the seal of confession, his strong desire, even his fixed intention, to attempt the Matterhorn from the Swiss side.'

The accompanying hitherto unpublished portrait is from a photograph in the possession of the Alpine Club, and the opportunity is also made use of to include an unpublished portrait of Lord Francis Douglas, referred to in Mr. Moore's account of the first ascent of the Gabelhorn as having repeated the ascent the following day. Lord Francis was killed a few days later after making the first ascent of the Matterhorn.]

If ever it is true of anything, that it inspires different people with different emotions, it is true of the Alps; for to some they are objects of aversion and even terror, while to others they are objects of greatest delight and intensest longings. And if this be true of any one mountain more than another, that mountain is the Matterhorn.

I have heard it described as 'black and awful, forbidding and ghastly'; and I have myself thought it the most graceful and fascinating mountain I have ever seen. Certainly, no mountain in the European Alps can boast of such rare curves of snow and rock, such overhanging precipices, such incessant and terrific avalanches, and such an appearance of inaccessi-

* [For an account of the accident cf. 'A.J.' iv. 373-379, where Leslie Stephen appears to justify this. Mr. Elliott was undoubtedly a very good man on a mountain, but a rope, properly used, would have saved him.]

bility, which, even now that its virginity has for ever gone, will isolate it to the last.

It will be remembered how, in 1865, the mountain was climbed for the first time, and how that brilliant success was turned into a most awful failure by the slip of one of the party, and the consequent destruction of four of them ; an accident that not only restored to the mountain its former reputation, but invested it with a superstitious dread it had not possessed before.

It was climbed again the same year, but from the opposite or southern side ; and in 1867, I believe, it was ascended three different times from the south side (once by guides, another time by an Italian) ; but the several attempts made on the north [i.e. east] side all, from one cause or other, failed. And so the superstition gathered strength, that no one who was rash enough to assail the Matterhorn from the north [east] side would ever get down alive. It was useless to represent that the accident was the result of the inexperience of one member of that first party, and that the northern slopes were more gentle than the southern, and therefore must be easier. With the tenacity of uneducated minds, the guides of Zermatt clung to their prejudice, and refused to make the attempt. Others, however, who perhaps from their inexperience might justly have entertained these fears, took truer views. Biener, I knew, was disinclined to make the attempt, even were his feelings no stronger ; and I could hardly venture, I thought, without him, with a strange guide whom I should not trust, and who would not trust me. I reached Zermatt over the Alphubel and Alphubel-Joch, and on Monday did the Dom ; and then, thinking I was up to the work, I sounded Biener on the subject of the Matterhorn. His answer was very touching to me. As far as I can recollect, it was this :—‘ Dear sir, I love you well. I know you are strong and sure of foot, and I should like to go with you everywhere. But my mother—if we should slip and fall, it would be sad for me, and sad for her.’ It was unanswerable. I turned the subject, and said, ‘ Well, will you try the Weisshorn ? Do you think it can be done now ; and do you think I am up to it ? ’ ‘ Ja wohl, Herr,’ sounded out with a full and round voice, very different from the previous words. So off we went, and did the Weisshorn. This settled the question in my mind, that, come what might, I would try the Matterhorn, weather being good. The work on the Weisshorn is spoken of as so hard, and I found the ascent so easy, though the descent was very difficult, that I got a higher,

perhaps vainer, idea of my powers. The east side, also, of the Matterhorn was almost wholly free from snow. Certainly there was snow on the top, and plenty of it ; but I thought, as the wish will direct the thoughts, perhaps the new snow may make the final peak of the Matterhorn easier, as it made the Wetterhorn and Mönch. So I tried again at Biener, after doing the Weisshorn, and said to him, 'Biener, will you go with me to the shoulder of the mountain ?' (where you are obliged to change sides) ; 'I know there is no danger as far as that, and I won't ask you to go a step further.' A shrug of the shoulders was at first his only answer : a reluctant look was in his face. Perhaps I ought not to have asked him again. Presently he said, 'I will speak again to my mother.' In the afternoon he returned with a sad and wistful look and said, 'No, sir ; I cannot go. My mother cried much when I spoke of it, and said, "Do not go, Franz, I entreat thee. Do not go." ' I at once responded, 'That settles the question ; don't go on any account ; you have done quite right to make that resolve.' And so it happened that I found myself, on July 24, 1868, without my own trusty guide, making arrangements with two men * who knew nothing of me, and of whom I knew nothing, who had not been up the Matterhorn or any really dangerous mountain, and of whose capacity to render help when wanted my opinion did not increase upon experience. One great difficulty presented by the mountain was the length of the climb from Zermatt, nine or ten hours' good walking. This had been remedied by the praiseworthy enterprise of M. Seiler, the landlord at Zermatt, who was then building a hut about seven hours up the mountain. This hut † was to be my sleeping-place the first night ; and it offered this double advantage, that so I might pass and repass the dangerous spot where the accident happened, before I had a chance of being tired, and

* [One of the men was Josef Maria Lochmatter, who became subsequently a well-known guide and was killed on the Dent Blanche in 1882 with his eldest son and Mr. W. E. Gabbett. His other sons are the well-known present-day guides of St. Niklaus. The other man was Peter Knubel, subsequently one of the best guides of the Zermatt Valley, who still survives, as straight in the back as ever if somewhat long in the tooth.]

† [This was the old or upper hut below the shoulder, now in ruins, but in course of replacement by the new Refuge Solvay. The fact that Mr. Elliott made nothing of going apparently unroped to the old hut where Lochmatter and Knubel were employed on the building shows that he was quite capable of taking care of himself.]

before the snow at the top had had a chance of being melted by the mid-day heat. But the great difficulty, compared with which all the rest were as nothing, was the mental struggle with the ghosts of old fears, which would not be laid, but returned with increased force the night before I left Zermatt, and made that night memorable in my life. To one in such a state of excitement action was the best remedy. I dozed on till nearly 5 A.M.; then had my breakfast, ordered a porter and provisions, and started at six. The work of breasting the steep slopes of the Hörnli was an indescribable relief; the weariness of the restless night was soon forgotten, and not another apprehension crossed my mind.

The way up to the hut was not difficult, though difficult enough in places to warn inexperienced men off; but the view at my back was marvellously grand all the way, and a sunset seen from a height of between twelve and thirteen thousand feet is not soon to be forgotten! I reached the hut at 1 P.M. and spent the afternoon in clambering up and about the mountain, reconnoitring the route of the morrow, and enjoying the view.

Sunsets and sunrises are impossible to describe, but as Nature speaks to the vexed spirit in her own calm tones, and as it realises that the heavens are declaring the glory of God, there are surely few that have not felt something like a nobler thought or a deeper peace than common. And so the peace came to me, as the sun shone upon glorious mountains of cloud, piled like Ossa on Pelion, dwarfing the greatest giants of mountains, till they were resplendent in light of gold and silver, and then of tenderest crimson. And as I saw the tender colours, and experience suggested that they were too tender to augur well for the morrow, the morrow seemed insignificant, and I lived only in the present.

We turned in early, for at that height it soon gets cold. I slept well, and at 4.15 A.M., after a hurried breakfast, I was off with two of the men who had been building the hut and were now to act as guides. They had made an ineffectual attempt the previous year, and they had no expectation that we should get to the top, and took little trouble to conceal their thoughts. The weather was bright, but an ominous cloud, ominous yet lovely as the loveliest, appeared in the east, piled far away above Monte Rosa. It seemed like a great flat-roofed temple on many pillars, with a huge pile above, and from its depths came forth ever and anon flashes of lightning. Was it the anger of the clouds at our audacity? Were they about to

sweep us from the mountains ? Or was it only the playfulness of summer ? A few hours would decide. The sun rose, and as its beams smote upon the pillars, the cloud waned and died. Of that sunrise and that sunset I think with as much real pleasure as of anything in the expedition.

At first our work was easy enough ; a few corners to turn, and ledges on which to balance oneself, all at an easy slope ; then a few steps to cut in the ice ; and in two hours we were at the foot of the final peak. Two objects of interest there were, however, in this part ; one the wonderful arête or ridge that runs down to the Hörnli, one of the most striking ridges I have ever seen. It is broken into the most wild and fantastic forms, sometimes solid as massive buttresses, at others wild and pinnacled, and shattered into fragments tottering to their fall. The other object of interest was the perpetual fall of stone avalanches, which, when on a large scale, are some of the grandest and most terrible things in nature. I saw many of them that day, and they made the very mountain tremble. This is one great danger of the east side of the mountain. That smooth slope which seems so easy to ascend is like a 'glacis' perpetually swept by the enemy's shot. It surprised me much that I had never heard of this, and also that I saw so little of the glaze of ice on rock, which was supposed to be the chief danger. But in this respect, of course, the mountain varies from year to year. On account of the avalanches, we kept always as near the ridge as possible, till we came to the shoulder. From this point we turned over to the northern side for the rest of the ascent, working round two or three steep crags by easy slopes of hard snow, intermingled with projecting rock, till we came to a more formidable barrier of steep rock, which runs right across the face of the mountain. This is undoubtedly the chief difficulty on this side, but I cannot say that it struck me as anything remarkable.* The handhold and foothold were fair, and I fancy I have climbed as bad cliffs alone in Cumberland. Beyond this the slope grew less steep, rocks gradually disappeared, and at last an unbroken snow-slope led us to the top at 8.45 A.M. The top was a ridge of frozen snow, narrowed to a knife-edge in parts, and in places formed into a lovely cornice overhanging the southern side. Two eminences on this ridge vie with each other for the credit of being the true summit.

* [It will be seen that Mr. Elliott's estimate of the difficulty corresponds very closely with the views of to-day.]

I turned to enjoy the view, and really I know of no view at all its equal. I had had ample opportunity to enjoy it as we came up, for the men moved very slowly; but those times were rich to me in enjoyment. And now as we were on the top, and the whole scene burst upon us in the early morning light, it was almost more than my capacity of enjoyment was equal to. Mont Blanc with his attendant aiguilles, ever magnificent; some way to the left the Grivola and Grand Paradis—the Grivola as marked as ever by the curved arête* which had moved my ambition last year; the Grand Combin between us and the Mont Blanc range; all the Zermatt mountains clear and cloudless, and Monte Rosa trying its best to look respectable on this side. But beyond, towards Italy, cloud; and towards the Tyrol, cloud. The glorious peaks of the Mischabelhörner were striking as ever; and then, most lovely of lovely things, the whole Bernese Oberland, from the Jungfrau to the Galenstock, and I think the Tödi, set as in a picture between the Mischabel and the Weisshorn, and covered with that exquisite blue atmosphere of distance which gives so incalculable a pleasure. The Weisshorn was there, far grander than from the Rifel and its neighbourhood, with a great rocky buttress running down to Zinal, which gives an amazing force to it. That most astonishing of all astonishing peaks, the Rothhorn, looked marvellous and unearthly. And beyond and over these the mass of the Blümlis Alp and Altels, and more to the west the great masses of glacier from the Wildstrubel, Wildhorn, and Diablerets. But most striking to me of all the peaks was the Dent Blanche close by, a peak almost as grand and as white as the Weisshorn seen from the Aeggischhorn. At our feet lay Zermatt, its hotels and church plainly visible.

I think my first impressions, after the first wild delight of finding myself at the top, were those of caution and doubt, whispered, as by an enemy, 'Yes: but you are not down safe yet.' But never came there a moment's apprehension. A passing shudder there was as I saw the place where 'they' fell, and the hopelessness of arresting such a fall.

But my guides were impatient to descend. They had insisted on our leaving our ice-axes below the final peak, and I think they now began to realize their mistake. For we had to descend

* [This arête was not climbed until 1876 by the Pendleburys with the two Spechtenhausers of Vent. Mr. Elliott evidently possessed a good eye for a new route.]

a slope of snow lying $1\frac{1}{2}$ feet thick upon rock at an angle of about 45° , increasing in steepness till it ended in an absolute precipice, and we had but one axe to stop the fall of all three, if any one should slip; while full upon our recollection flashed the memory of what happened on the first descent. Well for us was it that it was early in the day, and we ourselves fresh and strong and in capital condition. There are some positions in which the sense of danger is the best security against it. And I never wish for a stronger stimulant than the certainty that my guide will not hold me if I slip. I had this full certainty on the present occasion; for the slope is in parts so smooth that it is very difficult for the most prehensile feet to gain a good grip, and prehensile power was not one of the few accomplishments of my guides.* However, the crust of frozen snow (still frozen at that early hour) gave something of the hold to the hands which the feet wanted. And at length, after many delays and many ridiculous exhibitions of incapacity, we stood at the foot of the peak, and all danger might be said to be at an end.

Then we discarded the rope, ran down the sides as best we might, bringing small avalanches of stones in our train, stopped to take a last meal at the hut, and then started off again in our descent. Most inferior guides have a great notion of frequent eating and drinking, and as two hours was the very outside that my companions could exist without recruiting famished nature, I soon grew wearied of them, and, breaking from them, reached Zermatt by 4.30 P.M., long before I was expected, and in twelve hours from the start in the morning. There I learnt that all Zermatt had discovered us that morning at the top, and turned out to look at us. At dinner that evening a most tasteful bouquet was sent to me by Madame Seiler, and a bottle of champagne from M. Seiler, while a discharge of improvised cannon completed the commemoration.

One of the most astonishing, and, I must add, humiliating, things that happen to the climber is the nature of the remarks that are made to him upon climbing. A gentleman said to me that afternoon, 'Have you been up the Matterhorn? Well, then, I suppose you will try Mont Blanc.' So marvellously does the belief cling to many Englishmen that Mont Blanc is the hardest, instead of one of the easiest, of mountains. I hope

* [The men were then about thirty-five years old, and their powers were certainly considerably underrated by Mr. Elliott, who also had other differences with them.]

no one who reads these pages will follow this gentleman's advice and take his preliminary training for Mont Blanc by ascending the Matterhorn. If it be attempted, it should be attempted by men who have won their experience and proved their powers on many a crag and many an ice-slope. For them there is, I believe, no great danger ; and there is an irresistible attraction.

So long as the Matterhorn retains its marvellous outline and those subtle curves which made Ruskin call it ' a rearing horse of rock,' so long will men love it, and yearn after it, and count it the king of mountains.

Immediately after the successful ascent above described Mr. Elliott wrote a long letter to a friend of his, Mr. Wood. This letter was first published in ' The Field ' in 1910, and we are much indebted to the Editor of that paper for permission to give the following interesting extracts:—

Zermatt, July 25, 1868.

. . . I should tell you that to balance my disappointment about Biener, or almost counterbalance it, I had heard that a hut had been built, or was then being built, some way up the mountain, and that men were doing it as a speculation in hopes of winning back the money by large fees as guides (which, by the way, is not true, as it is Seiler's work). I had also read Mr. Jordan's (an American) account on his partial ascent on this side last year and successful ascent on the other, when he came down and joined his point of ascent, but owing to bad weather, was unable to complete the passage and make the Matterhorn a col.* In this he fully bore out our view that this side is the easiest, and he found a means of ascent all the way along the arête by which he avoided the dangerous place where the accident happened. This greatly encouraged me, and—must I confess it? (you will have already guessed it)—I sanguinely hoped to find my way alone from the shoulder to the top and back. At any rate whether guides were found to try it or whether I tried alone and failed, I thought it a pity to turn back when the thing seemed feasible, when I was in better condition than usual, and, as every year reminded me, growing older. More especially when the option was a

* [No record of this has apparently been published and it is probable that Mr. Elliott was misinformed. Mr. Jordan made the ascent from Breuil in October 1867.]

Sunday at Neuchatel and another day in Paris. So a porter was found, and I was to be called at four, and to get up in time to be up there early (it is seven or eight hours' walk) in time to look about me and explore the mountain; but it sometimes cost something to make such a resolve. . . .

I found I had not half laid the ghost of old fears and doubts. What if, after all, what I and you thought prejudice was not prejudice but sober truth? What if I were a fool to think the mountain so easy and so free from danger? I was alone and all Zermatt against me; not a Zermatt guide would go. And then vividly would come the picture of horrid slips and ghastly falls and mangled corpses, and my own was one of them. For myself perhaps I cared not, I thought it would be gain; but I had mentioned the possibility once to my sister, and I knew what she felt. Then reason came to the rescue, and I reminded myself that I should turn back if I saw danger. But away again imagination carried me with fearful avalanches down fatal rocks and hopeless slopes. I reasoned with my fears (for I must call them fears) and showed them to be groundless, but my reason and my text were helpless. In vain I prayed my prayers and made my confessions; in vain I recalled what my hope was. It did not fail me, but it was powerless. Fear carried the day; it seemed to lay hold of me like a bird of prey, I could not shake it off, and it was only at one o'clock when I was worn out with exhaustion that I sank into a troubled doze. Four o'clock came, but I was not fit to get up, and I dozed on till near five. Then had my breakfast, ordered a porter and provisions (for the porter I had ordered was not in Zermatt), and started at six. In seven hours we had reached the hut 7100 ft. above Zermatt; that is at 12,400 ft. above the sea. There was no difficulty, ice on the Hörnli there was none, as there was last year. The rocks were not easy, but they encouraged me, so did all I saw, and as my heart beat high with hope, and my lungs expanded with the mountain air, no one would have known me for the same being that lay the previous night tossing about and miserable. So easy did the work seem I fancied I could have got up in three hours from the hut and half determined to try. But though I succeeded beyond my expectations and reached a point not 2000ft. below the summit the cries of the men in the hut to me to return were so incessant that for mere peace and quietness I returned.

Gently and by degrees I opened my proposition to them: 'Would Knubel try?' 'With Lochmatter, yes. Without

him, no.' But his answer was given in so incredulous a tone as to offer little encouragement. So it was left, 'if the weather was fine we would try.' The guides had never been to the top, but they had been with Jordan on the north [east] side, and Jordan had since proved the route to be feasible. But they evidently doubted whether it could be done this year; still they would try. The hut is comfortable enough, built solidly of stone and boarded inside, as solidly that is, as anything can be without mortar. Very cold at night, but comfortable; the society, however, was anything but what I could have wished; they had just finished the hut; there were four lazy fellows, soon joined by three others, who did nothing but jabber a patois wholly unintelligible to me, make incessant and I concluded stupid jokes, and laugh, I thought, at me. Probably my nerves were overstrung and the malady took that form. I had brought up a new *Saturday* to read, and I read it as well as I could, enjoying the lovely view and dozing in turn. But I soon got cold in the shade at that height, and had to go into the hut into closer quarters with the objectionable idlers. . . .

'Sunsets and sunrises are impossible to describe, but as Nature speaks to the vexed spirit in her own calm tones, and as it realises that the heavens are declaring the glory of God, there are surely few that have not felt something like a nobler thought or a deeper peace than common. And the peace came to me as the sun shone upon the glorious mountains of cloud piled like Ossa on Pelion, dwarfing the greatest giants till they were resplendent in light of gold and silver, and then of tenderest crimson. And as I saw the tender colours, and experience suggested that they were too tender to augur well for the morrow—the morrow seemed to me to be insignificant. I lived only in the present. People laugh at me when I tell them I am getting old, but here is one sign of it. I used to be worried and impatient with anything that threatened my pleasure or my work. Now I try to get all the enjoyment I can out of the present and let the future care for itself. Is not that a mark of great antiquity? Eight people are a large number for that hut on the Matterhorn, and five in a row is decidedly close quarters. When you sleep there let me advise you not to get to the bottom of the inclined plane (for the floor is not level, but inclined), where they will try and put you, but to the top. It is all very well at first, but gradually the weight of gravitation begins to tell and movable bodies will roll, and so it may happen that you may wake up and

find more or less of the weight of the four others upon you, as I did ; and I can assure you that the sensation is not pleasant, for it savours of the nightmare. However, I slept very well, considering the place, and at four was quite ready to start after a fair breakfast.

At 4.15 we were off, the weather bright, but an ominous cloud, ominous yet lovely as the loveliest, piled far above Monte Rosa appeared in the east. It seemed to me like a great flat-roofed temple, on many pillars with a huge pile above, and from its depths came forth ever and anon flashes of lightning. Was it the anger of the clouds at our audacity—were they about to sweep us from the mountain—or was it only the playfulness of summer? The sun rose, and as its beams smote upon the pillars, the cloud waned and died. Of that sunrise and that sunset I think with as much real pleasure as of anything else in the expedition. But our work wanted attention as well as the sunrise, as we stepped from rock to rock, and wound round corners, and balanced ourselves on ledges, and climbed faces of rock. Very marvellous were the great buttresses of rock on the north-eastern arête. Not solid and massive and united as they seemed to my short sight from Zermatt, but peaked and jagged and pinnacled as Nature's own pinnacles and then shattered by Nature's own hand and tottering to their fall. The whole mountain seemed to me to be a mass of loose stones, lying generally at an angle of 45° , so that whenever you tread on them they at once run off in an avalanche. This forms one of the chief and characteristic dangers of the mountain on its eastern side ; that smooth slope which seems so easy to ascend is like a slope commanded by the enemy's guns and perpetually swept by stone avalanches. Fearful things they are ; I saw many of them that day, and they made the solid mountain tremble. It surprised me much that I had never heard of it, and it surprised me also that I saw so little of the glaze of ice on rock which was supposed to be the chief danger. But of course the mountain is different in different years. Owing to the stone avalanches we kept always near the arête. Soon we came to a little ice which required step-cutting, and then to the col at the foot of the final peak, in two hours from the hut. Our view had been gradually improving as we rose, but this opened out to us a whole new range of mountains from the Dent Blanche and its neighbours to the Dent du Midi. There was no sort of difficulty in turning the corner at the base of the final peak to get on to the northern side. It is as unlike Whymper's picture

as anything I have ever seen ; but e'er we turned the corner the guides proposed the inevitable eating and drinking. 'Eat!' I exclaimed, 'two hours after breakfast! What next?' 'But they must leave the provisions here.' 'Well, I would take some bread and butter in my pocket to eat at the top.' But for all that they ate, while I tried to shame them by abstinence.

For about 100 ft. or 150 ft. we were on the northern side, keeping close below the arête, but winding round the steep rock which stands like a pillar or tower to guard the approach. We wound round by easy slopes and good snow, intermingled with projecting rocks, and then again took to the arête along similar slopes of snow and rock. A little below that dark and fatal line of rock on the northern side which you know so well, and quite to one's left as one looks at the mountain, there is a similar crag, steeper, but I should fancy easier, which we ascended. It was not more difficult than many rocks which I have climbed alone in Cumberland, and this was the chief difficulty of the expedition. It seemed vertical, but readily discovered ledges and cracks and holes for hands and feet. And it is my impression that no good cragsman could fail to find the way, or at least a way, for I believe there are several. Above this were steepish slopes of good frozen névé, interspersed with rocks and smaller crags, which gradually disappeared, till an unbroken snow-slope carried you to the top. But we committed one radical error for which I cannot be too thankful we had not to pay dear. When we got to the foot of the tallest crag of which I have spoken, Knubel declared that we must leave our stocks behind us. I remonstrated, saying that we should want them above ; one he declared would be enough, and I very foolishly listened. So two were left, and one was hauled up by the rope. In getting up we had little difficulty. The leading man kicked or cut the steps in the frozen névé, and we followed in turn, one moving at a time on a very long rope, I should think, more than 100 ft. So we got up, sometimes helping ourselves by our hands when the snow proved soft underneath. One other complaint I had to make against Knubel—that he held the rope and would not tie it when I bade him, saying it was safer so, which, of course, was false ; and I had not the moral courage then to insist on it, fearing that he might turn sulky and refuse to go on, and seeing at that time no particular need of it. The top is an arête this year of snow formed in places, especially at the top, into a lovely cornice turned towards Italy. There are two

so-called tops, one on which Whymper's flagstaff is planted, the other on which the Italian guides planted theirs. An easy arête of snow leads from the one to the other, but we contented ourselves with the highest point, which this year is Whymper's, decidedly, as my spirit level told me.

Almost our first act on reaching the arête was to look down on the Italian side to see if we could see any traces of a party with which Tyndall was said to be attacking the mountain that day from the S. side. Nothing in the shape of a human being appeared. We shouted, but our shouts died in the air; no response came. First we turned to enjoy the view, at least I did, and really I know of no view at all its equal. I had had ample opportunity to enjoy it as we came up, for the men moved very slowly, and I had to wait perpetually where there was no need to wait. But those times were rich to me in enjoyment as I turned to look at the marvellous view. And now as we were on the top, and the whole scene burst on our view, with never a cloud to hide it in the early morning light (it was 8.45 A.M.), it was almost more than my capacity for enjoyment was equal to: Mont Blanc with his attendant aiguilles, ever magnificent; some way to the left the Grivola and Grand Paradis, the Grivola as marked by that curved arête which you know so moved my ambition last year; the Grand Combin between us and the Mont Blanc Range; all the Zermatt mountains clear and cloudless, and Monte Rosa trying its best to look respectable, but beyond towards Italy cloud and towards the Tyrol cloud; the glorious peak of the Dom as striking as ever, and the most lovely of lovely things, the Bernese Oberland from the Jungfrau to the Galenstock, and, I think, the Tödi, set as in a picture between the Mischabel Hörner and Weisshorn, and covered with that exquisite blue atmosphere of distance which gives so incalculable a pleasure; the Weisshorn, far grander than from the Riffel and its neighbourhood, with a great rock buttress running down to Zinal, which gives an amazing force to it; that most astonishing of all astonishing peaks, the Rothhorn, looking still more marvellous and unearthly, and beyond and over them the mass of the Blümlis Alp and Altels, &c.; and more to the west the great masses of glacier from the Wildstrubel, Wildhorn, and Diablerets. But most striking to me of all striking peaks was the Dent Blanche, a peak almost as grand and as white as the Weisshorn seemed from the Eggishorn. At our feet lay Zermatt, its hotels and churches plainly distinguishable, and one other little village we saw, I know

not what, near Evolena, I think, whose little church and road were distinctly visible. We remained but a short time at the top, for the guides begged me at once to descend while the snow was good, and I think they began now to realise their mistake; for now we had to descend snow slopes of 45° with an abrupt descent at the end, full of the recollection of what happened at the first ascent, and with but one axe to stop the fall of all three. Had not the snow been in capital condition, with a crust thick and strong, had we not been very early and the slope a northern slope, so that the sun had little power on it, if one had slipped we might have called in vain perhaps for help. I went first, slowly and steadily, planting my feet deep and using my hands to grasp the firm crust of frozen snow behind; the others followed, one only moving at a time. It was slow work, and their clumsiness made it slower. I really never saw men so little practised in snow and rockwork. Would you believe it, they came down all the snow, and all the rock, and all the ice backwards, with their faces turned towards the slope; long time had I again for enjoying the view as I waited for them. We timed our ascent perfectly; an hour or so later and the Matterhorn was veiled in mist, and our view would have been marred. We reached the base of the peak without slip of any kind in two hours and twenty-five minutes, and then the danger, if danger there was, may be said to have been over. I think half an hour at least might have been saved in going up and one hour in going down. But it was perhaps wise to take extraordinary precautions with such recollections as crowded one's memory. But, unfortunately, the men did not know the difficult from the easy, and took as great precautions on the one as on the other. Our way down was not momentous; we reached the hut at 1.5; and tired out with waiting for the guides, who were perpetually stopping to eat or rest, I reached Zermatt at 4.23, twelve hours and eight minutes from the start, the guides half an hour afterwards. I fortunately came down long before anyone expected me, and so avoided recognition. I learned afterwards that the whole of Zermatt had turned out to look at us on the top. Breakfast was neglected and people went mad on the spot, more especially because the climber was unknown to fame, and the ascent almost wholly unexpected. At dinner Mr. Seiler sent me in a bottle of champagne with his compliments, and Mme. Seiler a bouquet, very tastefully got up; a discharge of improvised cannon completed the absurdity. I think my first impressions on reaching the

top, after the wild delight at finding myself there, were those of caution and doubt whispered as by an enemy, 'Yes, but you are not down safe yet.' But never came there a moment's fear or a moment's apprehension. A passing shudder there was as I saw the place where they fell, and the hopelessness of rescuing such a fall. But when difficulties were passed and success complete, and we were on the green grass and thankfulness to God had welled up in my heart almost making my eyes run over with tears of joy, then there came a vague feeling of loss and of the absence of someone I expected to find there, a sort of instinctive putting out the hand to grasp another, and groping for it in vain. . . .

[Mr. Whymper, to whom several references are made in Mr. Elliott's letter, informs us that he has no recollection of having shown or of having made any drawings at the point referred to by Mr. Elliott, who may possibly have had in his mind two drawings by Gustave Doré which were lithographed and circulated extensively, but had nothing to do with Mr. Whymper. It is also right to add that Mr. Whymper entirely dissociates himself from the opinion expressed by Mr. Elliott concerning the experience and capabilities of the guides, for Lochmatter was a competent mountaineer, and Peter Knubel, says Mr. Whymper, 'is still alive and in working order at 75 years of age, after having made more than a hundred ascents of the Matterhorn.'—EDITOR, 'The Field.']

MOUNTAINEERING IN DUTCH NEW GUINEA.

By A. F. R. WOLLASTON.

(Read before the Alpine Club March 8, 1914.)

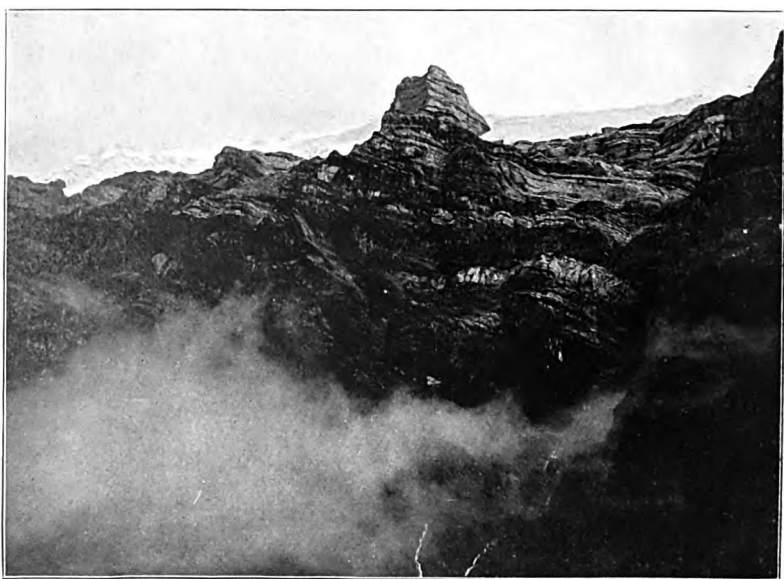
BEFORE reading this paper I must apologise to you for its title. It is of a mountain expedition that I am going to speak, but so much time was occupied in reaching the mountain range that mountaineering in the proper sense of the word will occupy but a small part of what I have to say. New Guinea, the largest island in the world, is, roughly speaking, 1400 miles long, and, at its greatest, 400 miles wide. Running through the island, from west to east, is an almost unbroken chain of



A. F. R. Wollaston, photo.]

[*Swan Electric Engraving Co., Ltd.*

MT. CARSTENSZ, FROM THE S. (Telephoto.)



C. B. Kloss, photo.]

[*Swan Electric Engraving Co., Ltd.*

THE CLIFFS OF MT. CARSTENSZ.

mountains, varying from 6000 to 16,000 feet in height. In the east or British portion of the country, most of the peaks have been surveyed, and some of them, notably the highest, Mount Victoria, have been ascended. In the west or Dutch division, the mountains are still, with the exception of three small areas, entirely unexplored. As long ago as 1623 a Dutch navigator, Jan Carstenszoon, or Carstensz, drifted out of his course and saw 'a very high mountain range, in many places white with snow, which we thought a very singular sight, being so near the line equinoctial.' He was exceedingly fortunate to see the snow mountains from the sea; there are very many days when nothing can be seen but white banks of fog hanging over the low-lying swamps along the coast, and there are ships' captains sailing those seas to-day who still deny the existence of the mountains. From the time of Jan Carstensz up to 1909, when my friend Mr. H. A. Lorentz reached the snow-line of Mount Wilhelmina, no man had ever approached even the foothills of the range. In 1910 a Dutch military expedition reached a point about 10,000 feet high in the Goliath Mountains by way of the Island river, and in the same year an English expedition tried to reach the highest group of mountains, which includes the snow-topped mountains Idenburg and Carstensz by way of the Mimika river. That expedition, of which I had the fortune to be a member, spent fifteen months in the country, and in that time we reached a point about half-way to the mountains, but even if we had spent twice that time in the country, I doubt if we should have come as far as the foot of the highest range. During those fifteen months we had a view on (I dare say) some one hundred mornings of the distant snows of Carstensz, and any one who has a love of mountains can understand how tantalising it was day after day to see those untrodden peaks so comparatively close at hand and yet as unattainable as the Mountains of the Moon. Our experiences in the Mimika expedition were not such as to give us a strong attachment to that country, but those early morning views and the desire to 'go and look behind the ranges' persuaded me that for my own peace of mind, if for no other reason, I must go there again. Before we returned to England I had a chance of visiting the Uta-kwa river, about sixty miles to the east of the Mimika river, where a Dutch expedition was at that time exploring the rivers, and it appeared that it might be possible to reach the snow mountains by following the Uta-kwa.

In May 1912 I left England, and after spending two months in the middle of Borneo, where I went to engage Dyaks to

accompany us as carriers, we sailed from Java on the last day of August. Besides my companion Mr. C. B. Kloss, of the F.M.S. Museum at Kuala Lumpur, we had a Eurasian engineer, five native collectors, 74 Dyaks, boys and others, to the number of 93. With us was the escort provided by the Dutch Government, commanded by Lieut. Van de Water, whose detachment of soldiers and convict coolies brought the total number of the expedition up to 226. The great part of the stores for my party alone consisted of 17 tons of rice, 1600 lb. dried meat, 1000 lb. dried fish, 200 lb. tea, and 1200 lb. sugar. The more important articles of the equipment were a 15 h.p. Thornycroft motor-boat, 25 feet long, 360 gallons petrol, 24 tents, tarpaulins, ropes, axes and other tools; red cloth, knives, and beads for trading with the natives, many cases of apparatus for collecting animals and plants, besides guns and cartridges. Every man was supplied with a blanket, a khaki coat and trousers, a woollen sweater, a flannel shirt, socks, and a long canvas bag to hold his belongings, and, if necessary, to serve as a sleeping-bag. Woollen caps and Canadian moccasins were taken for the smaller number of men who were expected to reach the high mountains. I ought, perhaps, to explain here that this apparently excessive number of men required for the transport of two Europeans for a comparatively short distance, and the consequent huge bulk of supplies and gear, were made necessary by the nature of the country. There is no food of any kind to be found in the country, so that every scrap of provisions for the whole party must be imported and carried laboriously inland; a considerable number of men are required for making canoes to navigate the upper waters of the river; and when water transport is no longer possible a way has to be cut literally almost every yard until the limit of vegetation is reached. The natives living near the coast, such few as there are, pick up a scanty living on rats and mice, roots and fruits and such things, and the people living in the mountains grow sweet potatoes, barely enough for themselves. Between the coast and the mountains is a region of utter desolation, in which, as we had abundant and most tragic evidence, no man can find a living.

After spending a few days at Amboina, we entered the mouth of the Utaqua river on September 18, and ten days later we had landed all our stores and established a base camp about twenty miles up the Setakwa branch of the river. Ten days more were occupied by the Dyaks in cutting down trees and making four large canoes; with these we were able to ascend the river for two days' journey, that is about fifteen miles, until

the rapid water made further navigation impossible. At that place we established a second base camp, the Canoe Camp, and from there we set out on our overland journey in a north-west direction. The only practicable way of making a long journey in that country is by making depots of food. Thus, while a certain number of men were always employed in bringing stores up the river to the Canoe Camp, others were carrying on loads to the first depot, and, when the first depot was well provided, from the first to the second, and so on. It was found that in the given circumstances, calculating by coolies' loads and their daily rations, the most economical and consequently the quickest plan was to make depots at intervals of three days' march. It will be obvious that at the best this was a very tedious process, and much time was necessarily occupied in waiting until the next place had been stored with food and an advance could be made. I will therefore try to describe our journey to the mountains as if it were a single uninterrupted march, merely remarking that between the day when we cleared the ground for our first depot camp and the day that we reached the snow of Mount Carstensz, thirty-one miles distant, ninety-two days elapsed, and I do not think we wasted any time.

Our first depot camp was in the foothills, at a height of about 2500 feet, and it was of great importance to us, partly because it was the first place where we were comparatively cool at night and were beyond the leeches and other objectionable creatures of the low swampy country, and partly because it was the only place from which we were able to obtain a comprehensive view of the range and were able to some extent to plan our probable route. From that place, the first depot camp, a day's march brought us back into the main valley of the Utaqua, and two days' march further on we established our second depot camp at a place where the narrowing valley made it necessary to cross the river. This was done at first by means of a long rattan stretched across the torrent, which was there about forty yards wide; loops of rattan were hung on the rope, and through one of these you thrust your legs and after sliding down to the middle you hauled yourself up to the other side—a very arduous and somewhat perilous proceeding. In the course of time a bridge of rattan was stretched across the river at that spot. Thereabouts we found ourselves beyond the foothills and surrounded by high mountains, and after that time, except when we descended to cross a river, we did not again find ourselves below 5000 feet. In that region, between 4000 and 6000 feet, we found natives living, scattered here and there,

wherever the slopes of the mountains were not too steep for cultivation of the sweet potatoes, on which they principally live. These people, though they could not by any chance ever have seen any stranger before, were from the first quite friendly to us—in some ways, indeed, too friendly—and it was to a large extent owing to their help, in showing us their tracks through the complicated ridges of the country in which they live, that we made such comparatively good progress. It ought to have been explained above that until you reach an altitude of about 8000 feet the whole country from sea-level is covered with the densest possible jungle. In the level country, before the foothills are reached, the ground is in many places a swamp, where you flounder knee-deep in slime, or wade deeper still through pools of stagnant water. The foothills begin abruptly, and thenceforward there is hardly ever a place so level that you can take two steps of equal length.

Our third depot camp was made at a place about 6,000 feet up, where there was a small clearing and a couple of native huts; beyond that place the slopes are so steep that cultivation even for a Papuan was impossible.

When we left that camp, we were accompanied by a few natives, who had been up the valley before. Though we saw in one or two places traces of fire under stones, where they had evidently rested, there was no track, and our progress was exceedingly slow and arduous. It was impossible to follow the river, which was a roaring torrent, confined in many places between sheer walls of rock; it was equally impossible to cut a track along the slopes above, for they were much too steep and were constantly broken by precipitous watercourses, divided from each other by sharp ridges. Thus our course was a series of toilsome ascents to avoid precipices and heart-breaking descents again to the bank of the river, so that our first day's march, though it involved climbing several thousands of feet, resulted in bringing us up only about 600 feet. It was wonderful that we met with no disaster, for the great weight of men clambering along those slopes was quite likely to cause one of the landslides which occur so frequently. In the steeper places the vegetation is only small trees growing on a thin carpet of mosses and orchids, and a little extra weight on it will cause the whole to slide off the slippery rock to which it clings into the depth below. With the help of ropes and rattans we traversed those places as lightly as possible. Sometimes we scrambled over the boulders of the river-bed, and in one place a sheer rock seemed to block our way completely. A young tree was felled

and thrown along the side of the rock to the head of the pool, where it jammed between two stones under water ; then we sidled carefully along it, feeling for it with our feet about a yard under water, as it was a mere sapling and bent like a fishing-rod ; there was nothing to hold on to, as the rock was sheer and slippery, and the water was running like a mill-race. Had a man slipped there he would never have been seen again. When the rain began to fall, as it did with a deplorable regularity every day, we climbed or descended through torrents of liquid mud, a mixture of rain and moss and earth set in motion by the feet of the men in front or behind as the case might be. It was impossible, on account of the dense vegetation, to move aside from the track, and as we were constantly halting while the men in front were cutting a track it can be imagined that the way was as disagreeable as it was steep. . At about 7000 feet there began to be a noticeable diminution in the size of the trees of the jungle, and the undergrowth, which was up to that altitude extremely thick and difficult to penetrate, became less dense. On the third day, at 8000 feet, the valley became wider and the character of the vegetation changed completely ; the large forest trees of the lower ranges disappeared, and their place was taken by pandanus and tall fir-like casuarinas. Above that altitude trees thinned out very rapidly, and the last trees (*Podocarpus papuanus*) were seen at about 10,500 feet.

The region between 8000 feet and 10,000 feet was by far the pleasantest we had yet traversed in the country. Our way lay up the rocky bed of a stream, one of the sources of the Uta-kwa, and the banks were covered with flowering shrubs and many flowers of a familiar appearance : a small geranium, a sort of meadow-sweet, a little blue gentian, and numerous terrestrial orchids, some of them very beautiful. In front of us were the towering precipices and the gleaming ice of Mount Carstensz, and behind us lay the deep valley of the Uta-kwa, and the many steep forest-covered ridges we had so painfully traversed. But it was never for long that we had any view at all. Every day in those higher regions the clouds descend about 9 A.M., followed soon by rain, so that during the latter part of those days' march we were groping blindly through the fog, and all were drenched to the skin. The Mummy tent of waterproof duck which I used on this journey developed a very unfortunate peculiarity in the higher regions. Moisture condensed so quickly on the roof, and flowed down to the floor in such large quantities, that I was obliged constantly to swab up the pools that collected and swamped my blankets. For

many days we were never dry night or day, and by reason of the consequent softness of our skins we were painfully scratched and cut by bushes and rocks. Every scratch became infected and quickly suppurated, and Kloss' hands were in such a deplorable condition that for several days he was unable to hold a pencil. The feet of the coolies, whether they wore boots or not, were dreadfully cut about, and their labour was very severe. At our camp, at 10,500 feet, it became evident that we should not be able to proceed further with a large party of men, as we were at the foot of the cliffs of Mount Carstensz, on which it would be very difficult to find even a small camping-ground, and the men were beginning to suffer from the cold. A serious drawback was the difficulty of cooking; the meagre brushwood was wet and unwilling to burn; the temperature of boiling water was so low that rice had to be cooked for a very long time; the result was that many men ate their food only half cooked, and many stomachs were disordered.

On January 30 Mr. Van de Water and I, with a few followers, including three Papuans, pushed on in the hope of finding a practicable way to the snow. For a mile or so we cut our way through a very dense moss forest, interrupted here and there by patches of bog; then a steep ascent brought us on to a little col between the main mountain and an outlying spur which had hitherto cut off our view. At last we stood on hard stony ground, unencumbered by the hateful vegetation, and were free to turn and gaze upon the land below us. At our feet lay the Utaikwa and its many branches, arising from Mount Utaikwa and Mount Venus. To the south-west were the many tops of Mount Cockscorn, and to the west the view was limited by the splendid mass of an unnamed mountain, a buttress of Mount Carstensz, resplendent with bands of red and yellow rock. Beyond the lowest hills lay the wide brown plain of heavy forest, water-logged jungle reaching to the distant grey line of sea. Here and there could be seen gleaming in the sunlight wide reaches of the great rivers winding through the forest, the Wania, Kamura, Neweripa, and very many others. Behind us towered the cliffs of Carstensz, so steep that we could not see even the lower limits of the snow. Fortunately, the south face of the mountain is not a sheer wall of rock; it is interrupted here and there by projecting buttresses at a gentler angle, and by occasional terraces or platforms covered with broken fragments fallen from the cliffs above. At about 13,500 ft. vegetation, except a daisy and a few grasses, came to an end. There we encountered a steep wall of limestone

rock, which at first sight appeared to bar our further progress ; one of the Papuans—they can climb like cats—found a way up it, and by means of an Alpine rope we were able to return that way in safety. Then a stiff scramble up smooth rocks brought us, at 14,200 ft., to the lower limit of permanent snow. This was a steepish slope of snow, leading up to a wall of ice, whose séracs, fifty and more feet high, seemed to be toppling almost over our heads. It was then too late to search for a further passage, so we descended to our camp, 4000 ft. below.

On the following day Kloss and I, with half a dozen Dyaks, made a camp above 12,000 ft. We were prevented from going higher by heavy rain which fell during our ascent. It was curious to observe that as soon as the rain ceased the water which had been coursing down the mountain-side immediately disappeared, soaking into the very porous sandstone which occurs at that level. There we spent a night which, judged even by the low standard of New Guinea comfort, was one of the most disagreeable I can remember. On the morning of February 1 clouds were low on the mountains, and no distant view could be seen ; by the time we reached the snow we were in thick mist, and it was obvious that we should not see much even if we attained to the summit ridge. We skirted along the face of the mountain westward, following a more or less horizontal terrace for about half a mile until we came to another easy slope of snow. This we followed until (at 14,866 ft.) we found our further progress barred on the one hand by precipitous rocks, and on the other by a steep wall of ice, the abrupt termination of the ice-field above. Either of these obstacles might have been overcome by a party of three competent Alpine climbers, but for two people to make the attempt in fog and rain would only have been to court disaster. Had we had time to skirt the mountain further to the west, we should certainly have found a less difficult way of ascent, but in the circumstances that was impossible. The point which we reached was near the dip between the eastern and western peaks of the mountain, and was, I am sure, considerably less than 500 ft. below the summit ridge. From the eastern summit of Mount Carstensz (15,800 ft.), an ice-field, much crevassed, as we saw from a distance, sloped down at a fairly steep angle to about 15,000 ft., where the angle of the underlying rock becomes so steep that ice and snow can no longer lie on it ; the result is that in most places the limit of the ice-field is an abrupt wall of broken ice, like that which confronted us. In one or two places where the rocks are not quite pre-

cipitous the ice trickles down, though even there very steeply, to a lower level. Judging from the formation of the mountain, it is fairly safe to assume that on the other side the slope would be considerably less steep, and the limit of snow and ice would be correspondingly lower. That was, of course, one of the questions which we had hoped that an ascent of the mountain would enable us to answer.

I need not here dwell upon our feelings of disappointment as we slowly stumbled down to our camp again. I had known well the southern face of Carstensz for three years, and I had often dreamed of reaching the ridge and seeing the unknown country beyond unfold itself range by range, higher mountains still perhaps—who knows? To have the prize withheld when it was nearly within our grasp was almost more than Christian patience could bear. However, it still awaits another opportunity. During the following days, as we went down the valley our disappointment was a little mitigated by seeing Carstensz always in the clouds; had we been there still we could have seen no view. The rest of the month of February was spent at different places in the mountains in making collections of animals and plants, and in March we returned by degrees to our base camp on the Utaqua river, in readiness to leave the country at the beginning of April.

As I began this paper, so also I must end it with an apology. I have told you of rain and mud and jungle, a dreary and depressing story of failure, an account of a gloomy range of mountains generally lost in fog, to which the Alpine joke is as foreign as (I am glad to say) is the broken bottle. In many sleepless nights and days of unceasing rain, when the rivers are unfordable, the fires refuse to burn, and the men are sick, you wonder what sort of a fool you were to come. But there are, of course, some few compensations. Of all the various kinds of men with whom I have travelled, none have been such good companions to me as were my Dyaks. Their music and their incomparable dancing, and the evenings' gossip in their huts, will be a happy memory when all the disagreeable things are forgotten. There are compensations, too, in those rare moments when you see a glorious view of snow-topped peaks and cliffs and distant hills through the magic atmosphere of the Tropics, and there is always a delight in the anticipation, not yet fulfilled, of looking over to the land beyond.



A. F. R. Wollaston, photo |

UPPER UTAKWA VALLEY (7,000 ft.).



C. B. Kloss, photo.]

[Swan Electric Engraving Co., Ltd.

ICE-FALL OF CARSTENSZ GLACIER.

THE FIRST ASCENT OF THE BIETSCHHORN FROM THE BALTSCHIEDERTHAL.

THE eighth 'Jahresbericht des Akad. Alpenklub Bern' (for the year ending October 31, 1912) contains an account of the descent of the E. arête, or, as Dr. Coolidge has it, E. spur* (cf. 'The Bernese Oberland,' Part II. 1910) of the Bietschhorn.

The party, Herren E. Häberli, A. and E. Scabell, left the summit at 9.30 A.M. on August 1, 1911, and followed for 2 hours the crest of the arête to a well-marked saddle or sort of shoulder at which point the arête begins to turn S. At this point it is possible to quit the arête and to turn down to the right or S., and thus gain the head of the great snow bay contained between the E. and S.E. arêtes, which latter divides the Baltschiederthal from the Bietschthal. The present party, however, at this point quitted the arête for its left or N. flank,† taking to the great shallow couloir which lies between the E. arête and the next slabby flattened arête to the N. (cf. 'A.J.' xxiv. 87-92 and illustration 298, and 'A.J.' xxv. 641-644). Descending at first slowly by reason of loose stones and afterwards quicker, the bergschrund was reached at 2 and the Baltschiederjoch at 4 P.M.

I am inclined to think that this expedition throws some further light on the first ascent made by the late C. T. Dent and J. Oakley Maund in 1878.

They gained the E. arête by bearing to the *left*, so must have been to the N. of it.‡ Their time from their bivouac to the E. arête was 8 hours, which, making the necessary allowances, is fairly confirmed by the times of the 1911 party, and they were on the E. arête for 3½ hours as against the 1911 party's 2 hours of descent.

A study of the illustration ('A.J.' xxiv. 298) will make the matter clear. The E. arête descends direct from the summit, and in its lower portion bends to the S. This arête is usually gained from the *left*, but the Dent-Maund party gained it, I consider, from the *right*. The illustration is not good, as what is really a very bold mountain from this Baltschieder side appears very much flattened.

There are, of course, other discrepancies in the accounts of the 1878 expedition which cannot be cleared up. I already had to point out that the topographical side of these accounts is not quite of conspicuous clearness.

I am inclined to think, therefore, that the line of ascent of the 1878 party coincided fairly well with the line of descent of 1911.

* The 'spur' is about 4 hours long and rises over 2500 feet!

† Much the best and safest way is, however, to follow the arête much further, nearly to its foot, where the snow-wall comes close up to its crest and permits easy access to the glacier.

‡ This is well brought out in *Bernese Oberland*, Part II. p. 86, with that unerring precision which seems never to miss a single point.

The shallow couloir to the N. of the E. arête, which I had under close observation on two ascents and two descents of that arête, is not particularly steep. It was when I saw it, however, partially filled with watery snow lying in patches on slabby-looking rocks and could not have been safely followed. In the splendid summer of 1911 it was no doubt dry, and was hence followed without great difficulty.

I should think that this is about the last contribution that is likely to be made toward clearing up a rather interesting topographical point. We are indebted to the writers of the accounts of the 1878 expedition not only for the brilliance of their style, but also for the interesting work which they give us in clearing up the apparently irreconcilable details of their topography.

J. P. FARRAR.

THE BRENVA FACE OF MONT BLANC.

It appears advisable to lay stress on the fact that it is not necessary to gain the main arête by the dotted route, 2 to 8 or 10 to 7, shown in the illustrations ('A.J.' xxvi. 203 and 433). The new edition of Kurz's 'Guide de la Chaîne du Mont Blanc,' overriding the first edition, apparently gives this dotted route, 2 to 8, as the regular approach to the main arête, nor is the 'Mont Blanc Führer' of the Ö.A.C. nearly as clear in the details as might reasonably be demanded for one of the greatest expeditions in the Alps, and which had been treated with considerable elaboration in the 26th volume of the ALPINE JOURNAL.

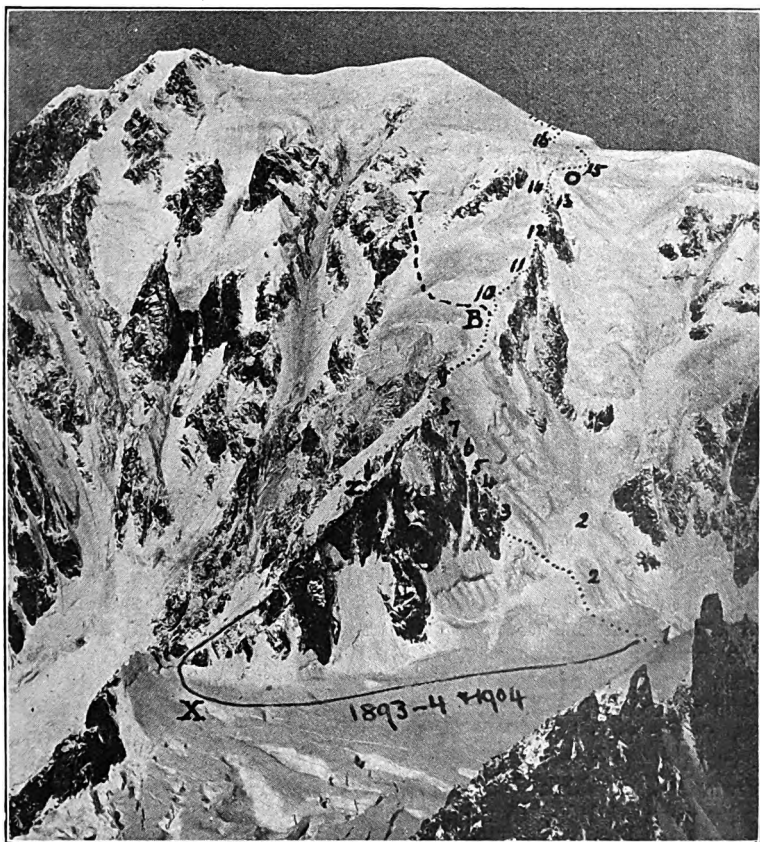
The illustration in the 'Führer' is much too sketchy to be of any value, and fails moreover to indicate the 'Einstieg,' of the essential importance of which my Austrian colleagues are well aware.

The sketch of the Bacino della Brenva, in the splendid monograph 'Il versante Italiano del Monte Bianco' by Signori F. Mondini, G. F. and G. B. Gugliermi, and E. Canzio ('Boll. C.A.I.' xxxv.), which every student of the Mont Blanc chain must always have at his elbow, indicates very roughly, as the authors point out, and so far as can be ascertained, Dr. Güssfeldt's and Herr Gruber's routes (cf. 'A.J.' xxvi. 172), both of which were in the part now under discussion admittedly dangerous.

The new guide-books seem however to have quite overlooked the remark ('A.J.' xxvi. 173), and the even more definite statement at the foot of p. 430 of an article by Dr. C. Wilson and myself.

'Imfeld 3330—Mieulet 3345—appears to indicate the lowest point or snout of the great buttress which terminates above in the famous "ice-arête." *The earlier ascents were made by the crest*

of this buttress which was gained at a snow saddle * about 150 mètres higher than the snout and which is shown vertically below Mont Blanc de Courmayeur on the plate facing p. 203. Later parties have left the glacier further N. and climbed by a subsidiary ridge (3 to 8 on plate facing p. 203 and now reproduced) to the arête.'



In that article it is further stated (p. 431): 'The readings show a difference of 419 m. between the snow saddle *where the ascent of the buttress commenced* * and the ice-arête and of 552 m. between the ice-arête and the point where the frontier ridge was struck. This would give a height of 3479 m. (11,411 feet) to the snow saddle and of 3898 m. (12,785 feet) to the ice-arête.'

* The italics are mine.

In the same article the top of lateral rib (No. 8 on Plate facing p. 203) is estimated to be 12,650 feet.

The guideless ascents of this stupendous face by the Mummery-Collie-Hastings party in 1894 (cf. 'A.J.' xvii. 537 seq., and 'A.J.' xxvi. 174), and by the Wilson-Wicks-Bradby party ten years later (cf. 'A.J.' xxvi. 175 and 264 seq.), rank high among the great expeditions of the Alps.

Dr. Wilson in the footnote ('A.J.' xxvi. 266) has indicated that his party gained the main arête at or about the snow saddle above referred to, and I have lately had the advantage of carefully comparing the point with Professor Norman Collie.

The accompanying sketch accordingly shows where my party of 1893 (cf. 'A.J.' xxvi. 173), the party of 1894, and the party of 1904 struck the arête, and I add for the sake of record the following note by Dr. Collie :

'Enclosed is a rough sketch [a tracing from the present plate] of where we went with Mummery.

'We left the glacier above X, and then went straight up to 8 quite easy climbing, rocks and snow. We then went on to B and turned to the left, and tried to cut up the steep ice-slopes, finally getting to Y, when we turned back and spent the night at Z below 8.

'Next morning we went up to B, then straight on ; it was at O that we had all the difficulty—the glacier above had moved so far forward that the ice cliffs were almost overhanging the frightfully steep ice gullies that went down to the Brenva Glacier. We got to the sky line above the hump.'

My own party in 1893 left the bivouac on the rock island in the Brenva Glacier at 3 A.M. on July 26, halted for 10 min. when in full view of the main arête, and reached the snow saddle* at 6 A.M. From this point we had some heavy step-cutting † before we reached the famous ice arête. We crossed this to the plateau just beyond it, reached at 9.45 (45 min. halts *en route*). By the new approach ('A.J.' xxvi. 203, Nos. 2 to 9) it apparently took to the same point 5 hrs. in a year (1911) when conditions were certainly much more favourable than in 1893 which, as well as crampons, I think discount to a considerable extent the sole advantage of 1 hr. 45 min. which the new approach then shows over the older one. The older approach, however, lands you on the arête by a safe route in 3 hrs. against over 4½ hrs. which the new and, in part, hazardous approach requires to gain a higher point on the same arête. This older approach to the main arête is perfectly easy and absolutely safe, and was adopted in observance of the sound rule that it is well to take to your arête as early as possible.

* My notebook of 1893 contains a pencil sketch of the route with the 'snow saddle' marked.

† We wore no crampons in 1893. Daniel and I first took to them in 1897. They might have saved or shortened the step-cutting in places.

The line is also so very obvious that I am at a loss to explain why the later parties struck out another line instead of following it.

I have here confined myself to the question of the best approach to the arête, but above the sharp ice arête, when once out on the great ice-slopes, any party of climbers is always, and more particularly when held back by long step-cutting, exposed to ice falling from the séracs high up on the left. Fortunately, in most years these séracs are more of the nature of a vertical square-topped ice-wall, so that the risk, though ever present, can by a thoroughly trained and well-led party of mountaineers be accepted with a reasonable amount of justification. I think however that the unfortunate fatality of last year, which happened not on the approach to the arête but after the face had been gained, was a pure accident which might have happened anywhere to any party always bound to accept with its eyes open certain inherent risks of mountaineering. I do not think it need have been foreseen or that it is one of the inherent dangers of this route.

My apology for this somewhat lengthy note is that it is the duty of a society like ours to study closely the lessons of safety so as to shape our future course accordingly.

J. P. FARRAR.

THE ALPINE CLUB EXHIBITION OF PHOTOGRAPHS, 1914.

OWING to the exhibition of the late Dr. Wilson's sketches and water-colours taking place in the Hall of the Club in December last, the Annual Exhibition of Photographs was postponed until May of this year.

Possibly it was the wet summer of 1913, or it may have been the contrast provoked by some of Mr. Ponting's wonderful Antarctic pictures, but the fact remains that the exhibits of members and their friends on this occasion seemed somewhat below the average.

We think, too, that the Club, as a whole, scarcely gives Mr. Spencer that support to which he is entitled. That there should be twelve lady exhibitors is very gratifying, but that only some forty odd members of the Club should consider it worth while to send in exhibits out of a membership of over 700 is surely disappointing.

In many instances the photographs would have benefited by being enlarged to a greater size; in a few cases the subjects were scarcely worthy of being reproduced on so large a scale.

The framing and mounting had also provided pitfalls for some of the exhibitors. This is perhaps not the place to discuss the advantages or objections of framing close up or with a margin, but generally speaking, where the subject matter of a print is not

very striking, it is a mistake to use a heavy frame, and so weaken the picture, and a brown frame more often than not clashes with a photograph in black tones.

To proceed to the exhibits, the very large prints of Mr. Ponting's Antarctic work showed an astonishing brilliancy and a perfection of technique that was quite unapproached by the other exhibitors. In four of them Mt. Erebus appeared, and there was an excellent portrait of our late member Dr. E. A. Wilson at work on one of his water-colour studies, and another of Captain Scott.

The mountain ranges of other countries, besides those where the Alps extend, furnished material for many exhibits, and there were pictures taken in Canada and in the Caucasus, in Iceland and in India, in Japan and New Guinea, and last but not least, in the British Isles.

Mr. Mumm's pictures, taken on his expedition in the Rockies last summer, were all interesting, that of 'Mount Robson from the N.E.' being particularly striking.

Mr. Young showed three pictures of the Caucasus, and the Rev. A. A. E. Murray two of Iceland.

Mrs. Bullock Workman and Dr. Hunter Workman once more delighted us with views of mighty peaks and vast glaciers, this time taken in the Karakoram Mountains. Mrs. Workman's telephoto picture of 'The Hawk, 22,160 feet' being very striking, while her 'Birdseye view of the Siachen Glacier,' taken from a height of 18,900 feet, gave one a wonderful impression of the great sweep of this mighty glacier.

Dr. Workman's 'Cloud from an Avalanche' was most interesting, while his picture of 'Khondokore Glacier' was remarkable for its curious effect of dappled sky.

Mr. C. F. Meade had six very fine Himalayan views, some of them almost too big; his 'Kamet and the 24,170 ft. Neighbour' we liked the best. Another view of the peaks of Mana and Kamet was quite Alpine in character.

The Rev. Walter Weston lent several views of Japan taken by native artists, one being of the active volcano of Yake-Dake.

Mr. A. F. R. Wollaston's panoramas of mountain ranges in Dutch New Guinea were curiously interesting, and suggested an atmosphere charged with moisture, although this effect may have been due to the action of the climate on the emulsion of the negatives!

It is unfortunate that Mr. Wollaston lost not only his cameras but the bulk of his negatives by the upsetting of a canoe. In fact, we believe he narrowly escaped with his life on that occasion.

Mr. W. N. Tribe had some good views of the English Lake district, and Mr. G. Bartrum a most wintry looking picture of 'Snowdon at Easter 1913,' with leaden sky and grey distance.

Mr. F. N. Trier's two winter views near Gstaad showed the contrast in climates, and reproduced most successfully the clear, brilliant atmosphere of the higher Alpine slopes, the smooth expanse

of snow, and the almost purple shadow of the ski tracks. Mr. Elliot Peel also showed some good winter scenes.

There were several interesting portraits, notably one of the late Monsieur Loppé at work, and another of 'Clara' of Saas Fée with an appropriate tea-cup.

Mrs. Bernard Allen showed a frame containing four very charming studies of cloud and water. The beautiful soft brown tint of these prints was particularly pleasing.

The Rev. W. C. Compton's exhibits were all good, the view near St. Christophe, Dauphiné, being the most successful.

Mr. H. Candler showed one of the many Matterhorn pictures. Col. Capper's picture of 'The Weisshorn' was very striking, and the frame of this exhibit exactly suited its subject.

The Rev. J. E. Dawson showed three frames, amongst them one of the many panoramas of this year's exhibition, but in most cases, and we think in his panorama from the Gorner Grat, although the view was comprehensive and interesting, the peaks themselves appeared insignificant, and the general effect was disappointing. A point of view for a successful panoramic photograph should be near its subject, otherwise the amount of sky included seems to reduce the size of mountains to insignificant proportions.

Mr. G. Fuller England showed a good picture of what may be called the back of the Blumlisalp.

Mr. Gover had three fine pictures in the Dauphiné, the most effective being 'The Pelvoux from the Pointe de la Pilatte.'

Mr. Thurston Holland's 'Above Chamonix' was the most noticeable of his exhibits.

Mr. R. L. G. Irving only favoured us with one exhibit this year, a particularly striking and well-composed picture of 'Monte Viso,' and it is a pity that this enlargement showed signs of discoloration.

Sir Alexander Kennedy showed four interesting pictures in the outlying mountains of France, his most successful picture being one of 'The Rocky Stronghold of Les Baux,' situated in that quaint little toy range of mountains, Les Alpilles.

Mr. Benson Lawford favoured poetical titles for his subjects, even for our old friend the Matterhorn.

The six entries of Mr. Victor von Leyden all attracted attention. His panoramas seemed to overcome the difficulties of this class of mountain photography. His striking picture of the summit of the Zinal Rothorn must have required some manœuvring to obtain, while his view of the Matterhorn appearing through the mist, from above Giomein, was also a most successful capture of an atmospheric condition.

Mr. E. Douglas Murray's exhibits were all good. His stormy sunset from the Brevent was most impressive, and his picture of 'The Dru,' with its clouds and glacier, was well composed. 'Séracs on the Nesthorn' showed well the texture of the snow and ice.

Miss Edna Walter showed some delightful studies of peasant life, all most happily composed.

Mr. Reginald Nevill's pictures in 'The Graians' and Miss Sophie Nicholls' photos of Savoy were most pleasing examples of sub-alpine subjects. The former's view of Cogne taken against the light, and the latter's picture of the valley of Contamines must both have recalled to many mountaineers the delightful days spent in those less frequented valleys.

Mr. Somerville Tattersall lent a picture by Lieut.-Col. Pitman of a Himalayan Pass which struck us as being the only exhibit which approached in any way the technique of Mr. Ponting's pictures. This enlargement showed the brilliancy and clear atmospheric condition which one knows so well, and which seems almost impossible to reproduce. The green tone, although not suited to many subjects, certainly suited this picture, and may have had something to do with its success.

Mr. Kenyon Parker had an excellent series of views in the Italian valleys.

Mr. E. de Q. Quincey's pictures are always interesting. His 'Séracs on the Mer de Glace' suggested most accurately the ice scenery of the upper glacier.

Mr. C. J. Reid showed two most sensational views of rock climbers at work, crack climbs which would have delighted the heart of Owen Glynn Jones.

'The Planereuse Ridge' by the same member was one of the most successful rock and cloud pictures in the Exhibition, and was worthy of larger reproduction.

Dr. Hugh Roger-Smith's pictures this year were all in the Dauphiné. We think his most successful exhibit was a view of 'Les Ecrins, from the Tête de la Maye.'

Mr. Atkin Swan's pictures of the 'Dru,' and 'Gabelhorn and Wellenkuppe,' were both of outstanding merit.

Mr. Sydney Spencer had a charming view of the little visited Brenta group, and two other pictures in the Stein district.

Mr. L. J. Steele's three pictures were, in tone, mounting, and framing, the most artistic pictures of the show, but, in our opinion, his subjects were scarcely worthy of their setting; or was the setting of the pictures so pleasing, so appealing to the eye, that the pictures themselves were overburdened and obscured?

'Kandersteg, Oeschinen See, and Blumlisalp,' by Mr. G. D. R. Tucker, was a wonderful piece of composition. In the foreground rocks and rough grass, then the deep plunge into the Kander Valley far below, while in the distance, above the clouds, rose the gleaming white peak of the Blumlisalp, a most successful picture.

Mr. P. J. H. Unna's 'Schreckhorn' showed a masterly effect of clouds and jagged peaks, and the 'Dent du Géant,' by the Rev. Valentine Richards, was a good piece of work.

Mr. C. F. Stuart sent three views of the Engadine. These

pictures appeared to have a photographic basis, and to be coloured by hand with water-colour; the effect by day was even more pleasing than at night.

In conclusion, Mr. Spencer is to be heartily congratulated on the collection and arrangement of the Exhibition, although he had certainly skied two of his own pictures in favour of less worthy material.

IN MEMORIAM.

THEOPHIL BOSS.

In March last Theophil Boss, an old friend, particularly of the middle generation of English mountaineers, passed to his rest. In the old days of the 'Bär' the cheery welcome of Fritz and Theophil will always be remembered, and in the later days when the 'Bär' was run on more modern and business-like lines, Theophil still tried to keep up the family tradition and never failed to greet his old friends with a warm-heartedness that was always charming.

Perhaps, Theophil, you never quite took to modern methods of hotel-keeping; perhaps they put you a bit out of joint. We won't forget you, mein Lieber, and returning some day to the old 'Bär' will still greet you in memory, still seem to feel the warm grasp of your big right hand. *Schlaf wol!*

J. P. F.

THE ALPINE CLUB LIBRARY.

The following books have been added to the Library since April:

Club Publications.

Akad. Alpenklub Bern. VIII. Jahresbericht 1912-1913. 1914
9 x 6½: pp. 18: plate.

Contains new ascents described:—

A. O. Hug, Gr. Dent. de Morcles N.W.-Wand: Gr. Muveran N.-Grat: Tête à Pierre Crept O.-Grat; E. Häberli, Bietschhorn Abst. N.-Flanke.

Akad. Alpenklub Innsbruck. 19. u. 20. Jahresberichte. 1912, 1913
9 x 6: pp. 88: 75.

These contain:—

1912: O. P. Maier, In der Melzerwand.

Neue Turen; O. P. Maier, Kaskarsp. N.-Wand: Walderzunderkopf S.-Wand; R. Mair, Querkogel W.-Grat: Mutmalsp. N.O.-Grat; H. Kees, Camp. di Canali.

- 1913 : *H. Renner*, Eine Kaukasus-Fahrt.
 Neue Turen ; *S. Plattner*, Hint. Schwärze N.-Wand ; *Pfaundler*,
 Gr. Wechnerkogel O.-Wand ; *K. Rufinatscha*, Putzenkarlescheid
 O.-Grat ; *O. Erlacher*, Eisengabelsp. S.-Grat.
- Akad. Alpenverein München.** XXI. Jahresbericht 1912-1913. 1914
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 82.
 Contains the following Neue Turen :
F. J. Kohlhaupt, Sattelkarsp. W.-Wand ; *A. Findeiss*, S. Wolf-
 ebnersp. W.-Wand ; *W. Blume*, Gerberkreuz d. d. Lindlahnschlucht ;
E. Wagner, Grabenkarasp. N.O.-Wand ; *E. Christa*, Kaiserkopf O.-
 Wand ; *H. Dülfer*, Totenkirchl (various routes) ; *P. d. Fessura* :
 Camp. Socront : Picol Cront : Crepa di Lausa ; *Gr. Cront* : Kl.
 Zinne S.W. : Schwabenalpenkopf N.W.-Wand : *Gr. Zinne W.-*
 Wand : Torre del Diavolo direct : Pta di Val Popena S.-Wand :
Guglia Edm. de Amicis ; *P. Preuss*, Donnerkogel : Schwarwandeck :
 Däumling ; *G. Frey*, Cresta Casa Madre : Mte. Re di Castello.
- Alpenklub 'Hoch Glück,' München.** VII. Jahres-Bericht 1912-13. 1914
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 32.
 The following first ascents are mentioned as not recorded elsewhere :—
P. Preuss, Nied. Strichkogel O.-Wand : Schwarwandeck v. N. :
 Wasserkarturm O.-Wand : Freyaturm N.O.-Kante : Schafkogel
 N.-Wand : Hohes Grosswandek S.-Grat : Aig. Gamba : L'Inno-
 minata S.-O. Grat : Pta Isabella S.-Grat : Aig. Savoie S.O.-Grat :
 Pte d. Papillons : Aig. Rouge de Triolet S.-Grat : Aig. Blanche de
 Péteret S.O.-Grat : Dames des Anglais S.O.-Grat ; *G. Renka*, Cima
 Rossa W.-Grat.
- Canadian Alpine Club.** Journal, vol. v. 1913
 9×6 : pp. (viii), 137 : plates.
 This contains, among the articles :—
A. L. Mumm, Some characteristics of mountain ranges.
H. C. Parker, Conquering Mt. McKinley.
M. Goddard, The mountains of Lake Chilko.
E. O. Wheeler, Mt. Elkhorn.
A. P. Coleman, Cirques and U-shaped mountain valleys.
Mary M. Vaux, Observations on glaciers.
N. Hollister, Camps in the Altai.
- Centre Excursionista de Catalunya.** Butlleti. Any xxiv. 1913
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 373 : ill.
- Climbers' Club.** Rules, list of members and officers. 1912, 1914
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 18, 20.
- C.A.F. Côte d'Or et du Morvan.** 24e Bulletin, Année 1913. Dijon, 1914
 $10 \times 6\frac{1}{2}$: pp. 58 : plates.
 This contains :—
J. Lafon, Mes Pyrénées.
- **Société des peintres de montagne.**
 Catalogue de la 16me exposition. 1913
 Catalogue de la 17me exposition. 1914
 $11 \times 7\frac{1}{2}$: pp. 4 each.
- C.A.I. Monza, Staz. Univers.** Tendopoli ai piedi del Monte Bianco. [1914]
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. 23 : map, ill.
- V° Congresso in Valnontey 13 Agosto 1910. Aosta, Marguerettaz, 1911
 $6\frac{1}{2} \times 4$: pp. 16.
- **Vade-Mecum S.U.C.A.I.** 1913
 $7 \times 4\frac{1}{2}$: pp. 112 : ill.
 A manual of mountaineering.
- **Verona.** Storia Sommaria della sezione. 1914
 $7\frac{1}{2} \times 5\frac{1}{2}$: pp. 59.
- D.u.Os.A.-V. Kalender für das Jahr 1914.** München, 1914
 $6 \times 3\frac{1}{2}$: pp. 95, 65, 139, 70.
 This is divided into four parts : (1) various rules and particulars of
 the Club ; (2) concerned with travel, literature, maps, medical, etc. ;
 (3) huts ; and (4) guides.

- D.u.Oe.A.-V. Register zu den Vereinsschriften des Deutschen u. Oe.A.-V.**
 1863-1905. Von Johannes Emmer. Innsbruck, 1906
 10 $\frac{1}{2}$ x 7 $\frac{1}{2}$: pp. 166.
- **Beiträge zur Geschichte des D.u.Oe.A.-V. in den Jahren 1895-1909.** Von
 Johannes Emmer. München, 1909
 10 $\frac{1}{2}$ x 7 $\frac{1}{2}$: pp. 61.
- **Akad. Sektion München. 1.-3. Jahresberichte 1911-13. 1912-14**
 8 $\frac{1}{2}$ x 5 $\frac{1}{2}$: pp. 17, 17, 31.
 These contain the following Neue Turen:—
 1911: *H. Dülfer*, Mädelgabel N.O.-Wand: Sonnenjoch N.O.-Wand:
 Hochiss N.-Wand: Totenkirchl N.-Wand: Donnaturm: Fallwand
 S.-Wand: *J. Husler*, Tritenkopf N.-Wand; *K. Springgorn*,
 Crozzon di Lares S.-Wand Abst. Camp. d. Camosci S.O.-Wand:
 Castello di Vallesinella O.-Wand.
 1912: *H. Dülfer*, Totenkirchl; *O. Oppell*, Costa Belpa: *H. Jaeger*,
 Brunnkarköpfe: Cima Eötvös S.W.-Wand: N.O. Cadinsp. O.-
 Wand: Gemelli N. Gipfel: Caccia grande.
 1913: *W. Dandler*, Kl. Leitersp. S.: Rosskarturm: Schafkorsp.
 N.O.-Grat; *H. Adeneuer*, Bernadinwand N.-Wand; *A. W.*
Forst, Mitt. Schosshorn W.-Grat u. S.-Wand: Thierkarhorn S.O.-
 Wand; *E. Hoferer*, Gr. Geiger N.-Wand.
- **Akad. Sektion Wien. Jahresbericht für 1913. 1914**
 9 x 6: pp. 43.
 New Ascents:—
A. Defner, Sagschneid (Ankogel): *E. Poech*, Kaltwasser-Gemsmutter:
 Kaltwasserkarsp.: Enzianenturm.
- **Asch. 36. Jahresbericht 1913. 1914**
 8 $\frac{1}{2}$ x 5 $\frac{1}{2}$: pp. 16: plates.
- **Baden bei Wien. IX. Jahres-Bericht 1913. 1914**
 9 x 5 $\frac{1}{2}$: pp. 16.
 The following first ascents are mentioned:—
H. Kiene, Piz Lasties S.O.-Wand: Schlern N.O.-Wand; *F.*
Malcher, Schituren in d. Australischen Alpen; *Fritz Malcher*, Hohe
 Achsel N.-Wand.
- **Bayerland. Verzeichnis empfehlenswerter Gasthäuser: nur für ihre**
 Mitglieder bestimmt. 4. Aufl. 1914
 5 x 3 $\frac{1}{2}$: pp. 14.
- **Der Bayerländer. Mitteilungen der Sektion. Jahrg. 1, Nr. 1.**
 9 $\frac{1}{2}$ x 6 $\frac{1}{2}$: pp. 12: ill. April, 1914
- **18. Jahresbericht. Vereinsjahr 1913. München, 1914**
 8 $\frac{1}{2}$ x 5 $\frac{1}{2}$: pp. 155: plate.
 Among the first ascents described are:—
F. Elsässer, Gatschkopf N.O.-Grat: *C. Griesl*, Gramaisersp.:
H. Amann, Daniel, N.-Wand: *P. Preuss*, Hochwanner N.W.-
 Grat: *J. Färber*, Ob. Wettersteinsp. v. N.: *H. Fiechl*, Schlüssel-
 karsp.: *O. Herzog*, Bocklarsp. N.-Wand: *F. v. Bernuth*, Kalt-
 wasserkarsp. N.O.-Grat: Gr. Zinne W.-Wand: Guglia Edmondo
 de Amicis: Pta di Val Popena alta: Tofana di Fuori: *K.*
Abscher, Fleisensp. N.-Wand: *J. Klammer*, Pentling O.-Wand.
H. Dülfer, Fleischbank v. S.O.: Kl. Halt N.-Wand: Camp-
 Socront: Crepa de Lausa S.-Grat: *H. Feichtner*, Hocheishorn
 N.-Grat: Kleineishorn N.-Grat: Vorbergerhorn O.-Wand: Gr.
 Grundüberhorn S.-Kante: *A. v. Major*, Flachkögel N.O.-Grat:
H. Reinl, Sammetkopf O.-Grat: Kopfwand N.W.-Kante:
 Linzerturm: Zahringkogel: Zahringzahn: *H. Bach*, Sass di
 Mezzodi v. N.: *A. Deye*, Paternkofel Abst. S.O.-Grat: *H. P.*
Cornelius, P. Albana N.-Grat: P. Güna S.-Wand Abst.: P. Grisch
 W.-Grat: P. Ot S.-Grat: P. Suvretta O.-Kante: Cima Codera
 S.W.-Flanke: Cima del Calvo N.-Grat: Mte Combolo S.O.-Grat:
 P. Ratti N.-Grat: *B. Figari*, Tor. Figari W.-Wand.
- **Berchtesgaden. Jahres-Bericht pro 1910, 1911 u. 1912. 1913**
 8 x 6: pp. 46.

- D.u.Os.A.-V. Bergland, München. Jahresbericht 1913.** 1914
 9 × 6: pp. 85: 2 plates.
- Neue Turen:—*K. Holzhammer*, Gatschkopf N.O.-Grat: Kridionsp. S.-Grat: Kl. Leitersp. W.-Wand: Schneekarlesp. N.O.: S. Grosskarsp. W.-Wand; *H. A. Mann*, Daniel N.-Wand; *H. Jack*, Pleissensp. N.-Wand; *A. Deye*, Karwendelköpfe N. nach S.: Kreuzwand S.O.-Grat: Alphorn N.-Wand; Tofana di Fuori N.W.-Wand; *S. Dafner*, Haidachstellwand W.-Wand: Rofan N.O.-Wand; *J. Dorn*, Kl. Geiger v. W.: Schlüsselsp. S.-Grat: Passportenkopf N.-Grat: Paternkofel Abst. S.O.-Grat; *H. Bögner*, Pta d'Agnello N.W.
- **Bozen.** Jahresbericht f.d. xlv. Vereinsjahr 1913. 1914
 8½ × 5½: pp. 54.
- **Braunschweig.** Bericht, 1912. 1913
 9 × 5½: pp. 5.
- **Satzung.** 1912
 6 × 4½: pp. 12.
- **Breslau.** XV. u. XVI. Jahresberichte, 1912, 1913.
 8½ × 5½: pp. 30 each.
- **Celle.** Satzungen. (1912)
 8½ × 5½: pp. 8.
- **Coburg.** Berichte 1912, 1913. 1913, 1914
 8½ × 5½: pp. 32 each: map Drachensee-Gebiet.
- **Danzig.** Berichterstattet am Schlusse des 25. Jahres ihres Bestehens.
 8½ × 5½: pp. 23. 1913
- **Deutsch-Fersental.** Bericht für 1913. 1914
 13 × 8½: pp. 4.
- **Dresden.** Jahresbericht für 1913. 1914
 9 × 5½: pp. 148: plates.
- **Essen.** Bücherverzeichnis. 1913
 10½ × 8½: pp. 7, typed.
- **Frankenthal.** Bericht für die Jahre 1909 mit 1913. 1914
 8½ × 5½: pp. 23.
 Contains library catalogue, pp. 11–13.
- **Hagen i. W.** Bericht 1903–1912. 1913
 9 × 6: pp. 54.
 Contains: Beschreibung u. Plan der Hagener Hütte am Mallnitzer Tauern.
- **Halle.** Jahresberichte 1911, 1912, 1913. 1912–14
 8½ × 5½: pp. 45, 31, 32.
- **Hochland.** XI. Jahresbericht, 1913. München, 1914
 8½ × 5½: pp. 72: ill.
- The following ascents are described:—
 Gerberkreuz: Vierersp.: Tiefkarsp.: Mittl. Grosskarsp. W.-Wand: Grabenkarsp. N.O.-Wand: Hoher Gleiersch: Nied. Brandjoch: Wandlsp.: Stempeljochsp.: Pta Minuta N.O.-Wand: Sattelkarsp. S.W.-Wand: Kl. Turm, Lienzer Dolomiten, S.-Wand.
- The last three are first ascents.
- **Kottbus.** Verzeichnis der Bücherei. 1913
 8½ × 5½: pp. 8.
- **Berichte 1910, 1911–12.** 1911, 1913
 8½ × 5½: pp. 15, 17.
- **Kufstein.** Jahresbericht 1910 u. 1911. 1912
 8½ × 5½: pp. 6.
- **Kurmark:** früher Altkölln. Sitzung. [1913]
 8½ × 5½: pp. 7.
- **Mitgliederlist 1913–14.** 1914
 8½ × 5½: pp. (12).
- **Leipzig.** Jahresbericht für 1913. 1914
 8½ × 5½: pp. 88.

D.u.Oe.A.-V. Linz. Jahresberichte 1909-1913.

1910-1914

8½ × 5½.

The following new ascents are merely mentioned :—

1909. A. *Listhuber*, Teufelsmauer, Abstieg; K. *Wankmüller*, Tommelberg S.-Wand.

1911. R. *Damberger*, Hochkasten N.-Wand: Gr. Priel N.O.-Wand: Suchiplaz S.-Wand: A. *Listhuber*, Palu N.O.-Wand: Ostgipfel N.-Wand: Cima d'Amola S.-Wand: Cima Scarpaco N.W.-Wand: O. *Pitschmann*, Gr. Grimming N.-Wand: Todtenkopf: Glockerin W.-Grat: Eiskögele v. W.

1912. L. *Enzenhofer*, Leitersp. v. Norden: T. *Fischer*, Pyhrner-Kamp N.O.-Grat.

1913. L. *Enzenhofer*, Aig. d'Entrève S.W.-Grat: Pte Aig. d. Glaciers S.O.-Grat.

— Magdeburg. Jahresberichte 1909-1913.

1910-1914

8½ × 5½: pp. 29, 21, 38, 22, 21.

1909. W. *Ohrtmann*, Bergfahrten im Wallis: Trifhorn, Zinal Rothhorn, Dufoursp., Mte Rosa S.-Grat.

1911. D. K. *Urban*, Der Altphilologe auf der Reise nach und in der Schweiz.

— Memmingen. Jahres-Berichte 1911 u. 1912.

1912, 1913

8½ × 5½: pp. 24 each.

— Mülheim-Ruhr. Satzung.

1911

7½ × 4½: pp. 3.

— Niederelbe-Hamburg. Satzung.

[1913]

9 × 5½: pp. 4.

— Oldenburg. Satzung.

1912

7 × 4½: pp. 6.

— Verzeichnis der Bücher- u. Kartensammlung.

1914

7 × 4½: pp. 8.

— Pfalzgau. 25. Jahresbericht.

1914

9½ × 6½: pp. 39: plate.

— Prag. Jahresbericht 1913.

1914

8½ × 5½: pp. 23.

— Reichensteiner. Jahresbericht für 1913.

1914

8½ × 6: pp. 40: plate.

The following new ascents are described :—

J. *Baumgärtner*, Nennerköfele S.-Wand: Cima Bagni, N.-Wand: Elferkopf: Morgenalpensp. S.-Wand: Altensteinsp. S.-Wand: Kalbling W.-Wand: J. *Fischer*, Oestl. Mugonisp. S.-Wand: K. *Eschelmüller*, N. Hasenohr, N. Tauern.

— Rostock. Satzungen.

1910

8½ × 5½: pp. 8.

— Saaz. Satzungen.

[? 1914]

12 × 8: pp. 4: typed.

— Saarbrücken. Bericht über das xi. Vereinsjahr 1913.

1914

8½ × 5½: pp. 41: plates.

The first winter ascent of the Grosslitzner by Herr A. Herzberger and the (probably) first traverse of the Plattentürme by Herr Herr, are mentioned in this report.

— Vorarlberg. 44. Jahres-Bericht für 1913.

1914

8½ × 5½: pp. 61.

— Wiesbaden. Berichte 1911, 1913.

The Bericht for 1911 contains :—

Schutzhütten u. Höhenwege der Sektion.
Bücherverzeichnis.

8½ × 5½: pp. 52, 32: maps, ill.

— Ausflüge 1912, 1913, 1914.

6 × 4: pp. 4 each.

— Zwickau. XIX. Bericht für die Jahre 1903 bis 1912.

1913

8½ × 5½: pp. 36: map, plates.

- Egyetemi Turista Egyesület.** Turistiság és Alpinizmus. Vol. 4. 1913-14
 $9\frac{1}{2} \times 6\frac{1}{4}$: pp. viii, 434 : plates.
 This contains (in Hungarian) :—
 B. Imre, On the Brenta Dolomites.
 Z. Frigyes, Batiz Wand Grat.
 Z. Oszkar, Sarkanwand.
 H. Valér, Expeditions in Switzerland.
 M. Sándor, Mountains of the Hohe Tatra.
 K. Ernő, Gross Glockner.
 J. Marcel, Dent Blanche.
 B. Imre, On the south-east of the Varangyostavi summits.
 G. Istvan, The plant world of the Hohe Tatra.
- Gorni kruzhok pri Vladikavkazskom kadetsskom korpusye.** 1911
 Ustav. $8\frac{1}{2} \times 6\frac{1}{4}$: pp. 7.
 — Vuipushk 1.-4. 1910-1913
 $8\frac{1}{2} \times 6\frac{1}{4}$.
 — Vladikavkaz, Voенno-Gruznskaya doroga, Tifis Kratki pytevoditel.
 E. D. Kazantsev i D. V. Rakovich. 1913
 $7 \times 4\frac{1}{2}$: pp. 111 : maps.
- Japanese Alpine Club.** 12 photographs of mountain scenery, in case. 1913
 $12 \times 9\frac{1}{2}$.
- Mazamas.** Final announcement of the Twenty-first Annual Outing of the Mazamas to be held at Mt. Rainier, August 1-16, 1914.
 $6 \times 3\frac{1}{2}$: pp. 16.
- Nanfa.** Annuario 1913. Torino, 1914
 $9\frac{1}{2} \times 6\frac{1}{4}$: pp. 20.
 — Statuto sociale. [1913]
 $8\frac{1}{2} \times 5\frac{1}{4}$: pp. 4.
- Oe.T.-K. D.u.Oe. Touristen-Klub.** Sektion Dresden d. Oe. T. K. Bericht für 1913. 1914
 $8\frac{1}{2} \times 5\frac{1}{4}$: pp. 65.
- Russian Alpine Club.** Ezhegodnik X., 1910. Pod redaktsie tovarishcha predsedyatelya Obshestva F. S. Kracilnikova. Moskva, 1914
 9×6 : pp. 190 : plates.
 This contains (in Russian) :—
 Merzbacher, First ascents in the Caucasus.
 S. Golubev, Expedition to the central Caucasus. Ascent of Elbruz, new pass from Baksan to Chegem : crossing Tziber : residence in Suanetia : crossing Tzaner : bivouac on the Bezingi Glacier : attempted ascent of Duich-tau : organisation of the expedition.
 F. S. Kracilnikov, Across the Busarchilski Pass and the Glacier of Kibye-sha.
 I. I. Myromov, Expedition to the northern Caucasus.
 V. V. Sapozhnikov, Blyelucha in 1911.
 A. v. Meck, Mont Monnier.
 M. G. Zaidner, Mountaineering and the young.
- S.A.C. Basel.** Jahresbericht pro 1913. 1914
 9×6 : pp. 69 : plates.
 Contains : C. Egger, Bericht über das 50-jährige Jubiläum d. Sektion.
 Mention is made of the following first ascents :—
 H. Burckhardt, P. Campionigo N.W.-S.O. : C. Egger, Stäfeldpass
 Ueberschr. : Gr. Windgalle Trav. W. : H. Fuchs, Blaubergstook
 S. Wand : J. Heller, Mitt. Blaubergstook S.W.-Grat.
- **Bern.** Bibliothek-Katalog. Teil II. 1913
 $8 \times 5\frac{1}{2}$: pp. 234.
 This contains the lists of the valuable collection of G. Studer's MS.
 correspondence and drawings in possession of the Section.
- Jahresbericht für 1913. 1914
 $8 \times 5\frac{1}{2}$: pp. 72.
- **Chaux-de-Fonds.** Bulletin annuel No. 22. 1913
 $8 \times 5\frac{1}{2}$: pp. 87 : plates.
 Good plates of Monte Viso and of the Bietschhorn.

Ski:—

- Club alpiner Skiläufer**, München. 6. u. 7. Jahresberichte 1911–1913.
 9 × 6½ : pp. 32 : 28. 1912, 1913
- Dresdner Ski-Club**. Jahresbericht 1912–1913. 1914
 9 × 6½ : pp. 36 : plate.
- National Ski Association of America**. The Skisport. 8th annual publication. Season 1912–1913. Ashland, Wis., 1914
 10 × 6½ : pp. 75 : ill.
- North of England Ski Club**. Year book, vol. 1, no. 4. 1913
 9½ × 6 : pp. 43 : ill.
 This contains short articles on ski-ing in England, Scotland, Switzerland and Norway.
- Schneeschuh-Verein München**. Bd. 2. Inntal-Chiemgau, bearbeitet von C. Döhlemann. München, Steinebach, 1914
 6½ × 4½ : pp. 110 : plates.
- Skilaut-Sektion d. Oesterr. Touring-Club**. Skisport im österr. Touring-Club. Wien, 1913/14
 6 × 8½ : pp. 99 : ill.
- Società Alpina Stoppani di Merate**. Brindes d'on meneghin sul Resegon da Corradino Cima. 1914
 pp. 15 : ill.
- Ungar. Karpathenverein**. Jahrbuch. XLI. Jahrgang. Redigiert von Andreas Marcsek u. Julius Wiese. 1913
 9 × 6 : pp. 157 : plates.
 This contains :—
 T. Posewitz, Aus alten Zeiten in der Tatra. A bibliographical article on early books.
 I. Györfy, Bibliographia botanica Tatrensis.
 A. Grosz, Die Ratzentürme.
 Neue Touren :—A. Grosz, Koprovasp. : Drachenwand : E. Teschler, Kl. Vizsoka N.O.-Wand : J. Komarnicki, Roter Flossturm S.-Grat : Z. Klemensiewicz, Petrik-Sp. N.O.-Wand : J. A. Hefty, W. Gabelsp. S.-Wand : A. Grosz, Stara v. W. : auch erste Winterbesteigungen.
- Unione Alpinistica Torre-Pellice**. XIV. Bollettino Sociale. 1914
 6 × 4 : pp. 32.
- Verein z. Schutze d. Alpenpflanzen**. XIII. Bericht. Bamberg, 1914
 9 × 5½ : pp. 103 : plates.
 This contains, among other articles :—
 Berichte ü. d. Alpenpflanzengärten Schachen, Gauertal, Neureuth, Bad Reichenhall.
 K. Magnus, Botan.-geol. Wanderung v. St. Bartholomä nach Saalfelden.
 A. v. Kreusser, Botan. Wanderung in Füssen's Umgebung.
 Gesetze u. Verordnungen z. Schutze d. Alpenpflanzen.

New Books.

- Almanacco dello sport**. La vita dell'Italia e dell'estero in tutt'ele sue manifestazioni. Anno I. Firenze, etc., Bemporad, 1914
 7½ × 5 : pp. 375 : ill.
 Among other articles this contains :—
 M. Tedeschi, Il cinquantenario del C.A.I.
 P. Monelli, Ski e skiatori.
 F. Bosazza, Alpinismo.
- Baedeker**. Südbayern, Tirol, Salzburg, Ober und Nieder-Oesterreich, Steiermark, Kärnten und Krain. Handbuch für Reisende. 36. Aufl. Leipzig, Baedeker, 1914
 6½ × 4½ : pp. xxvi, 677 : maps, plans.
- Barton, Wm. W.** Engadine year book, 1914. A record of the sports. A guide to the sports. Compiled by Wm. W. Barton. Fourth year. London, Siegle : Paris, etc., 1914
 7½ × 5 : pp. xxiv, 244 : ill.
 This includes Mountaineering, first ascents, local mountain tours ;

taken from 'The Climbers' Guide for the Bernina.' There are also chapters on other sports and a guide to the Engadine.

Baumbach, Rudolf. Reise- und Wanderlieder.

6½ × 4: pp. 91.

Stuttgart u. Berlin, Cotta, 1914

This contains various Alpine poems:

Was zieht dich nach den Bergen? Triglav, Bernina, Ortler,

Madatschglatscher: Abo für Bergwanderer, etc.

Wenn an der Freuden Särgen

Der Kleinmut mich beschlich,

Dann zieh' ich nach den Bergen.

Und droben find' ich mich.

Baumeister, Dr. Georg. Das Bauernhaus des Walgaues und der wälderischen Bergtäler Vorarlbergs einschliesslich des Montavon.

10½ × 7½: pp. 208: plates.

München, Seyffried, 1913. M. 18

A very interesting architectural work, giving illustrations, often with exact measurements, of all the details of peasants' houses. There are drawings of the various details of wood construction and ornamentation, with pictures, many coloured, of the houses: with full descriptive text.

Benesch, Fritz. Spezialführer auf der Raxalpe. 5. vermehrte und verbesserte Aufl.

Wien, Artaria, 1914

6½ × 4½: pp. xii, 200: maps, ill.

Van Bergen, Dr. J. In Zwitserland. Herinneringen en indrukken.

7½ × 5: pp. vi, 203.

Baarn, van de Ven, 1910

— In Italiaansch Zwitserland en Grauwubunderland. Herinneringen en indrukken.

Baarn, van de Ven (1912)

7½ × 5: pp. 122.

Bickel, J. A. Der Lawinen-Franz Josef vom Tannberg.

6½ × 4½: pp. 68: ill.

Bregenz, Deutsch [1914]

Bozen. 150 Ausflüge, Spaziergänge und Touren in der Umgebung von Bozen-Gries.

Bozen, Deutsche Buchhandlung [1914]

6½ × 4½: pp. 25.

Cadier frères. Au pays des isards. Un grand pic Marmurè ou Balaitous (le massif de Batlaytouse). Avec une préface du Comte de Saint-Saud,

Un des cinq frères Cadier. A Izarda, Osse: Lezay, Canon, 1913 (i.e. 1914)

8 × 5½: pp. 246: map, plates.

Fr. 5

Camping. The handbook of the Amateur Camping Club.

London, 1914

7½ × 4½: pp. 104: ill.

A very useful handbook of hints.

Canada. Department of Mines. Guide-books. Ottawa, Gov. Print. Bur. 1913

8 × 5½: plates, maps.

No. 8, pts. 1-3: No. 9. Toronto to Victoria and return. pp. 386: 164.

No. 10. Excursions in Northern British Columbia and Yukon Territory and along the North Pacific Coast. pp. 178.

These guides are geographical and geological.

— Depart. of Interior. Report of the Commissioner of Dominion Parks for the year ending March 31, 1913. Ottawa, Gov. Print. Bureau, 1914

9½ × 6½: pp. 96: plates.

Candler, Edward. Round Nanga Parbat. In Blackwood's Mag., London, vol. 195, nos. 1181-1182.

March, April, 1914

9½ × 6: pp. 351-367: 509-524.

Carle, Dr. Sur les routes des Alpes en automobile. Le massif de la Chartreuse, Le Vercors et la forêt de Lente, L'Oisans, La Vallée des Arves, La haute route des Alpes.

Paris, Hachette (1913). Fr. 3.50

7½ × 4½: pp. 241: maps, plates.

Notes written while travelling; useful practical notes for anyone following the same routes.

Carpentieri, Giacomo. Il Caucaso. Estr. d. Riv. milit. ital.

9 × 6½: pp. 27: map, plate.

Roma, Voghera, 1913

Case, Henry Jay. Dartmouth—a winter college. In 'Outing', vol. lxiii, no. 4.

9½ × 6½: pp. 387-401: ill.

Jan. 1914

Correvois, H. Les plantes des montagnes et des rochers, leur acclimatation et leur culture dans les jardins.

$7\frac{1}{2} \times 4\frac{1}{2}$: pp. xx, 491 : ill. Genève, chez l'auteur : Paris, Doin, 1914. Fr. 10

The chapters are :—

Les plantes de montagnes, leur caractère particulier, acclimatation, semis et culture : cultures spéciales : les plantes silicicoles : les plantes saxatiles et murales : construction des rocailles : jardins alpins : liste des plantes, leur indigénat, description sommaire avec indication de la culture convenant à chacune d'elles : floraison : la fougère : les orchidées de pleine terre : cactées rustiques : les lys : index des genres et des noms français.

Eichert, Wm. Führer durch die Berggebiete bei Wr.-Neustadt. IV. Teil : Touristen-Führer für Wanderungen im Berggebiete südlich des Wechsels.

$7\frac{1}{2} \times 4\frac{1}{2}$: pp. v, 62 : map, ill. Oe. T. K. Sektion Wr.-Neustadt (1914)

Engelhörner. Clubführer durch die Engelhörner verfasst durch den Akademischen Alpenclub Bern. Bern, Bäschlin, 1914. Fr. 3.50

$7\frac{1}{2} \times 4\frac{1}{2}$: pp. 134 : map, plates.

Fairbanks, H. W. The geography of California.

$7\frac{1}{2} \times 5\frac{1}{2}$: pp. 190 : map. San Francisco, Whitaker & Ray-Wiggin, 1912

A general geographical description of California, including the Sierra Nevada and other mountain ranges, the Yosemite Valley, etc.

v. Fieker, H. Die Pamirexpedition des D.u.Oe.A.-V. 1913. In Zeit. Ges. Erdk. Berlin, no. 5. 1914

10×7 : pp. 355-364.

Forrest, A. S., and Henry Bagge. Switzerland revisited.

$8 \times 6\frac{1}{2}$: pp. 92 : ill. London, Griffiths [1914]. 2/-

A very slight description of a tour, with quite good but rather dimly reproduced pictures, chiefly of architecture.

France. Ministère de l'Agriculture. Direction générale des eaux et forêts.

Service des grandes forces hydrauliques (Régions des Alpes et du sud-ouest).

Études glaciologiques Savoie-Pyrénées. Tome III. 1912

$11 \times 7\frac{1}{2}$: pp. viii, 166 : plates.

This contains :—

M. Mougins, Études glaciologiques en Savoie.

L. Gaurier, Les variations de la glaciation dans les Pyrénées.

A fine set of plates from old prints and photographs of Mont Blanc, etc.

— — — Annexe du Tome V. Cartes. 1912

French, Harold. In the realm of sovereign Shasta. In Pac. Coast Golf and outdoor sports, S. Francisco. Vol. 4, no. 18. December, 1913

$13\frac{1}{2} \times 9\frac{1}{2}$: 14-17 : ill.

Freshfield, Douglas W. Unto the hills. London, Arnold, 1914. 5/- nett

$6\frac{1}{2} \times 4\frac{1}{2}$: pp. viii, 120.

Galeotti, Gino. Gli effetti dell'alcool nella fatica delle ascensioni. In Riv.

Mens. Tour. Club ital. anno xx, n. 2.

Febbraio 1914

$9\frac{1}{2} \times 6\frac{1}{2}$: pp. 103-109 : ill.

The Geographical Journal. London. Vol. 43. January to June, 1914

$9\frac{1}{2} \times 6$: pp. viii, 782 : maps, ill.

This contains, *inter alia* :—

No. 2, February : F. B. Workman, Rose Glacier.

No. 3, March : A. F. R. Wollaston, Dutch New Guinea ; W. H. Workman, Physical characteristics of the Siachen Basin.

No. 6, June : K. Mason, The Indo-Russian triangulation connection.

Granö, J. G. Morphologische Forschungen im östlichen Altai. In Zeit. Ges. Erdk. Berlin, no. 5. 1914

10×7 : pp. 329-341 : ill.

Grinnell, Joseph. The highborn of the Sierra Nevada. In Univ. of California Publ. in Zoology, vol. 10, no. 5. May 9, 1912

$10\frac{1}{2} \times 7$: pp. 143-153.

- Grinnell, J., and Swarth, H. S.** An account of the birds and mammals of the San Jacinto area of S. California. In Univ. of California Publ. in Zoology, vol. 10, no. 10. Oct. 31, 1913
 $10\frac{1}{2} \times 7$: pp. 197-406: plates.
- Guides.** Cantone del Ticino. Regolamento per le guide e portatori di montagna. 7 Aprile, 1914
 $7 \times 4\frac{1}{2}$: pp. 20.
- Hall, A. Vine.** Table Mountain. 7th thousand. Cape Town, Miller [1913]
 5×4 : pp. 34.
- Heim, Arn., u. Arbenz, P.** Karrenbildungen in den Schweizer Alpen. Geolog. Charakterbilder hsg. v. Dr. H. Stille: 10. Heft. Berlin, Borntraeger, 1912
 $12\frac{1}{2} \times 9\frac{3}{4}$: pp. 8: 7 plates.
- Hobbs, William H.** Mechanics of formation of arcuate mountains. Reprinted from Journ. Geol. Chicago, vol. 22, Pt. 1-3. January-May 1914
 $9\frac{1}{2} \times 6\frac{3}{4}$: pp. 71-208: ill.
- Presented by T. Fisher Unwin, Esq.
- Hoffmann, Julius.** Alpenflora für Alpenwanderer und Pflanzenfreunde. Mit 283 farbigen Abbildungen auf 43 Tafeln meist nach Aquarellen von Hermann Friese. In zweiter Auflage mit neuem Text herausgegeben von Prof. Dr. K. Giesenhagen. Stuttgart, Schweizerbart, 1914. M. 6
 $8 \times 5\frac{1}{2}$: pp. 147: col. plates.
- Högbom, A. G.** Ueber die norwegische Küstenplattform. In Bull. Geol. Institut. Univers. Upsala, vol. xii. 1914
 $10 \times 6\frac{3}{4}$: pp. 41-64: ill.
- Högbom, Bertil.** Ueber die geologische Bedeutung des Frostes. In Bull. Geol. Institut. Univers. Upsala, vol. xii. 1914
 $10 \times 6\frac{3}{4}$: pp. 257-398: ill.
- Johnston, Hugh.** Travel films, being pen pictures of Europe. London, Kelly, 1914. 3/6 nett
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. vii, 167: plates.
 An American's rapid trip through Europe, including Switzerland, the Lake District, and Scotland.
- v. Kadiich, Hanns Maria.** Aus Oesterreichs Bergen. Jagd- und Waldfahrten. Neudamm, Neumann (1913)
 $7\frac{1}{2} \times 5$: pp. 266: portrait.
 Forcibly written. Descriptions of hunting scenes and mountain people: showing a strong love for mountain nature.
- Kaiser, Isabelle.** La Vierge du Lac. Roman des montagnes d'Unterwalden. Paris, Perrin, 1914. Fr. 3.50
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. 290.
- Kaminska, Mlle. E. W.** Die Dauer der Schneedecke auf den Nordabhänge der Karpaten. In Bull. intern. de l'Acad. d. Sc. de Cracovie, cl. d. sc. mathém., sér. A, no. 9. Novembre, 1912
 10×7 : pp. 871-884.
- Kilian, W., et Reboul, P.** Morphologie des Alpes françaises, IIe fasc. Massifs cristallins de la zone delphino-savoisienne. Geolog. Charakterbilder, hsg. v. Dr. H. Stille, 15. Heft. Berlin, Borntraeger, 1913
 $12\frac{1}{2} \times 9\frac{3}{4}$: pp. 13: 8 plates.
- Krebs, Norbert.** Länderkunde der österreichischen Alpen. Bibliothek Länderkundlicher Handbücher, hsg. von Prof. Dr. Albrecht Penck. Stuttgart, Engelhorn, 1913. M. 20
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. xv, 567: maps, plates.
- Kühner, P.** Chamois-hunting in Switzerland. In Scribner's Mag., London, vol. 55, no. 6. June, 1914
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 762-773: ill.
- Kurz, Louis.** Guide de la chaîne du Mont Blanc à l'usage des ascensionnistes. 2me édition. Revue et considérablement augmentée, avec 39 croquis dans le texte. Neuchâtel, chez l'Auteur, 1914. Fr. 12
 6×4 : pp. xxiv, 296: ill.
- Le Blond, Aubrey.** The story of an Alpine winter. [A new edition.] London, Bell [1914]. 2/-
 $7 \times 4\frac{1}{2}$: pp. vi, 289.
- Léotard, Jacques.** La route des Alpes et la route des Pyrénées. Reprinted from Bull. Soc. de géogr. Marseille. 1913
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 11.
- Livy. Book XXI.** Adapted from Mr. Capes's Edition by J. E. Melhuish. London, Macmillan, 1912
 $5\frac{1}{2} \times 4$: pp. viii, 197: map, ill.

- Lorentz, H. A.** Zwarte Menschen—Witte Bergen. Verhaal van den tocht naar het sneeuwgebergte van Nieuw-Guinea. Leiden, Brill, 1913. 8/-
10 × 7: pp. xii, 262: map, plates.
- Lüthi, Gottlieb, u. Egloff, Carl.** Das Säntis-Gebiet. Illustrierter Touristenführer. 3. Aufl. St. Gallen, Fehr, 1913. Fr. 3
7½ × 4½: pp. 200: map, ill.
A very excellent guide book, with many good illustrations and a sketch-map of all routes.
- Lunn, Arnold.** The Alps. Home University Library.
6½ × 4: pp. 256. London, Williams and Norgate, 1914. 1/-
- Martel, E. A.** Seattle. In La Nature, Paris, 41e année, no. 2089.
11½ × 8: pp. 4-11: ill. 7 juin 1913
- Les cavernes de Moravie. In La Nature, Paris, 42e année, no. 2117.
11½ × 8: pp. 57-63: ill. 20 décembre 1913
- La pente et le cañon du Rhône (1910 et 1911). In Tour du Monde, Paris, t. xx. n.s., 16e livr. 18 avril 1914
12 × 8½: pp. 181-192: ill.
- Massieu, Mme Isabelle.** Népal et pays himalayens. Paris, Alcan, 1914. Fr. 10
10 × 6½: pp. 228: plates.
The authoress has travelled much in the regions described and had special permission to visit Nepal. The first chapter describes the valley of the Sutledj. Then follow the route to Nepal, description of Nepal and Katmandu: the route to Sikhim and description of Sikhim and of Bhutan. Much geographical detail is given, and descriptions of the country and of the peoples, with pictures, especially of buildings and works of art
- Mayr, Julius.** Das Büchlein von Hintertux. Brandenburg, Selbstverlag (1914)
7½ × 5: pp. 80.
- Monod, Jules.** Chamonix and Mont Blanc. Official guide-book
6½ × 4½: pp. 139: plates. Geneva, Burkhardt, 1913
- Moriggl, Dr. Josef.** Von Hütte zu Hütte. Führer zu den Schutzhütten der deutschen und österreichischen Alpen. Unter Mitwirkung der Sektionen d. D.u.Oe.A.-V. u. d. übrigen hüttenbesitzenden Vereine. Herausgegeben von Dr. Josef Moriggl. 6. Bändchen. Kaisergebirge, Chiemgauer Alpen, Salzburgerische u. Steirische Kalkalpen, Ober- u. Niederösterr. Voralpen, Cetsische Alpen. Leipzig, Hirzel, 1914
6 × 4½: pp. xii, 234: maps.
- Mount Rainier and its Glaciers.** Mt. Rainier National Park. U.S. Department of Interior. Washington, Gov. Print. Depart. 1914
9½ × 6: pp. 48: ill.
- Musgrove, Charles D.** Holidays and How to Use Them.
Bristol, Arrowsmith: London, Simpkin, Marshall, 1914. 2/6
7½ × 4½: pp. viii, 203.
In his chapter on climbing, the author shows that he understands something about mountaineering, for he writes:—'Is there such a thing as a narrow-minded, mean-spirited mountaineer? . . . I have never met any. . . If you have cobwebs on your brain, get on to the top of a hill. . . By the time you descend you will take a broader outlook on life in general.' There are chapters on the other ways of taking holidays, with many hints on health.
- Ostreich, Karl.** Himalaya-Studien. In Zeits. Ges. Erdk. Berlin, No. 6.
10 × 6½: pp. 417-461. 1914
- Palmer, Howard.** Mountaineering and Exploration in the Selkirks. A Record of Pioneer Work among the Canadian Alps, 1908-1912.
New York and London, Putnam's, 1914. 21/-nett
9½ × 6: pp. xxvii, 439: maps, plates.
- Palmer, Wm. T.** Odd yarns of English lakeland. Narratives of romance, mystery, and superstition told by the dalesfolk.
7½ × 5: pp. x, 160. London, Skeffington [1914]. 3/6 nett
A volume of interesting tales collected in the Lake District by the compiler.

- Palmer, Wm. T.** The novice in modern Cumbrian rock-climbing. In *Brit. Rev. London*, vol. 6, no. 3. June 1914
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 460-464.
- Paschinger, Dr. Viktor.** Die Schneegrenzen in verschiedenen Klimaten. *Petermanns Mitt. Ergän. Nr. 173.* Gotha, Perthes, 1912. M. 7.80
 $10\frac{1}{2} \times 7\frac{1}{2}$: pp. 93: maps.
- Peck, Annie S.** A race for a mountain top! The first ascent of stately Coropuna. In *Illustr. Outdoor Work*, New York, vol. 49, n.s., nos. 1-2. December 1912: January 1913
 $14 \times 10\frac{1}{2}$: 12 pp.: ill.
- Rabot, Charles.** Les glaciers du versant nord-est du massif du Pelvoux au début du XIXe siècle. In *La Géographie*, Paris, vol. 29, no. 2. 15 février 1914
 11×7 : pp. 114-120.
- Ramond, L.** Voyage au sommet du Mont-Perdu. Introduction par M. Paul Dubié. Pau, Garet & Haristoy, 1914. Fr. 5
 $10 \times 6\frac{1}{2}$: pp. vi, 27.
 Reprinted from *Journal des Mines* 1803 pp. 321-350.
 This, no. 68 of 125 copies printed, has kindly been presented by Monsieur Dubié. The original is very rare, and the paper is well worth reprinting.
- Roberts, Askew, and Woodall, Edward.** Gossiping Guide to Wales. (North Wales and Aberystwyth.) Traveller's edition. London, Simpkin, Marshall: Oswestry, Woodall, 1914
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. xvi, 328: maps, ill.
 An excellent guide-book, with a chapter on mountaineering and panorama from Snowdon.
- Rudaux, Lucien.** La neige dans les gouffres des Pyrénées. In *La Nature*, Paris, No. 2124. 7 février 1914
 $11\frac{1}{2} \times 8$: pp. 183-187: ill.
- S., J. J.** Dr. Wollaston's expeditie naar den Carstensz-Berg in Ned. Nieuw-Guinea. In *Tijdschrift K. Ned. Aardrijksk. Gen. 2 serie, deel xxxi*, No. 3. 1914
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. 388-394: 2 plates.
- Savoy.** Atlas P.L.M. Savoy, Dauphiny. [1914]
 $10\frac{1}{2} \times 7\frac{1}{2}$: pp. 20: map, ill.
- The P.L.M. guide to the Alps. Centres for touring and mountaineering. $8 \times 4\frac{1}{2}$: pp. 34: maps, plates. [1914]
- Schuster, Oscar.** Reisewinke für Kaukasusfahrer. S.A. Oesterr. Alpenzeit, Jahrg. 36, Nr. 899-901. 1914
 $10\frac{1}{2} \times 7\frac{1}{2}$: pp. 12.
- Sievers, Wilhelm.** Reise in Peru und Ecuador ausgeführt 1909. Wissens. Veröff. Ges. f. Erdk. Leipzig, Bd. 8. München u. Leipzig, Duncker und Humblot, 1914
 $9\frac{1}{2} \times 6\frac{1}{2}$: pp. xii, 411: plates, maps.
 This volume contains:—
 Die Unterabteilungen der Sierra (Die Kordillere im Osten d. Marañon: Die Cordillere de Huayhuash: Die Cordillere Negra: Das Santa-Tal: Die Cordillere Bianca: Die Cordillere von Conchucos: u.s.w.): Die Vergletscherung d. Kordillere—Einzelstudien u. Zusammenfassung u. Schlussfolgerungen: Zur Kenntniss des Klimas: Untersuchungen ü. d. Verteilung d. Vegetationsformationen sowie ü. Höhengrenzen d. Pflanzen: Handelsgebiete u. Verkehrswege: Barometrische Höhenmessungen v. Th. Reil.
- Spathmann, Hans.** Die Schildvulkane des östlichen Inner-Island. In *Zeit. Ges. Erdk. Berlin*, No. 5. 1914
 10×7 : pp. 364-393.
- Switzerland.** Summer Sports in Switzerland. 1914
 $5 \times 7\frac{1}{2}$: pp. 64: ill.
- Verein Naturschutzpark.** Naturschutzparke in Deutschland und Oesterreich. Ein Mahnwort an das deutsche und österreichische Volk. 2. Aufl. 10×7 : pp. 63: ill. Stuttgart, Franckh (1913)
 This contains:—
 M. Kemmerich, Naturschutzparke.

- H. Sammereyer, Die Errichtung des Alpennaturschutzparkes.
 C. Schröter, Der erste schweizerische 'Nationalpark,' Val Cluozza.
 This society is of considerable interest to members of the Alpine Club, many of whom are interested in work done in Britain similar to that for which the Verein Naturschutzpark exists. This report contains an account of a new reserve in the Hohe Tauern and a view of the reserve in the Grossglockner region. It is work that deserves the support of all nature-lovers. The address of the Society is Pfizerstr. 5, Stuttgart.
- Walser, Hermann.** Landeskunde der Schweiz. 2. verbesserte Aufl. Sammlung Götschen. Berlin u. Leipzig, Götschen, 1914. Pfg. 90
 6 × 4: pp. 147: map, plates.
- Webb, W. L.** Brief biography and popular account of the unparalleled discoveries of T. J. J. See. Lynn, Mass., Nichols: London, Wesley, 1913
 9½ × 6: pp. ix, 298: plates.
 Chapters xi, xii: How the mountains were made: Origin of the Himalayan mountains.
- Wieleitner, H.** Schnee und Eis der Erde. Bücher d. Wissenschaft 16. Bd. 5½ × 3½: pp. 198: plates. Leipzig, Reclam (1913)
 A good short general description of ice in all forms, with good small plates.
- Workman, Fanny B.** Conquering the Great Rose. In Harper's Monthly Mag. vol. 129, No. 769. June 1914
 9½ × 6½: pp. 44-55: ill.
- Young, Bert Edward.** Edward Whymper, Alpinist of the Heroic Age. Reprinted from Pop. Sc. Monthly, June 1913, for private circulation, in the hope that it may inspire a more worthy tribute to this remarkable traveller. 12 × 8½: pp. 9. Nashville, Tennessee, 1914

Older Books.

- Alpes et Pyrénées:** arabesques littéraires composées de nouvelles historiques anecdotes, descriptions. Paris, Lehuby, 1842
 8½ × 5½: pp. viii, 392: lithographs.
- Baillie, Marianne.** First impressions of a tour upon the Continent in the summer of 1818, through parts of France, Italy, Switzerland, the borders of Germany, and a part of French Flanders. London, Murray, 1819
 9 × 5½: pp. viii, 375: 5 plates.
- Bonvalot, Gabriel.** Through the Heart of Asia over the Pamir to India. London, Chapman and Hall, 1889
 10 × 6½: 2 vols., pp. xxii, 281: x, 249: map, plates.
- Brooks, Phillips.** Letters of travel. London, Macmillan, 1893
 8 × 5: pp. vii, 386.
- Campbell, Alexander.** A journey from Edinburgh through parts of North Britain: containing remarks on Scottish landscape; . . . New edition. 10½ × 8½: 2 vols., pp. xx, 408: vii, 396: plates. London, Stockdale, 1811
- [Carne, John.]** Letters from Switzerland and Italy, during a late tour. By the author of 'Letter from the East' and 'Travels in the East.' 8½ × 5: pp. xii, 472. London, Colburn, 1834
- v. Charpentier, Johann.** Anzeige eines der wichtigsten Ergebnisse der Untersuchungen des Herrn Venetz über den gegenwärtigen und frühern Zustand der Walliser Gletscher; gelesen zu Luzern d. schweiz. Naturf. Ges. am 29. Juli 1834. In F. u. H. Mitt. 1, Nr. 3 u. 4.
 8½ × 5½: pp. 482-536.
- [Cooper, Fenimore.]** Essays, descriptive and moral; on scenes in Italy, Switzerland, and France. By an American. 8 × 4½: pp. xi, 265. Edinburgh, Constable: London, etc., 1823
- Excursions in Switzerland. Paris, Galignani, 1836
 8½ × 5½: pp. xii, 323.
- VOL. XXVIII.—NO. CCV.

- Florian.** The history of the Shepherdess of Chamouny. London, Fisher, 1799
7 x 4 : pp. 21-38.
- Gill, Capt. William.** The river of golden sand : being the narrative of a journey through China and eastern Tibet to Burmah. Edited by Col. Henry Yule.
7½ x 5 : pp. 141-332 : map, plates. London, Murray, 1883
- Glaciers.** Die Gletscher, ihre Verbreitung und Bildung, die wichtigsten Gesetze ihrer Structur und Bewegung. In Die Gegenwart VI.
8½ x 5½ : pp. 504-531.
- H., F. J. (? Hugl).** Standpunkte zur Beurtheilung der Gletscherfrage. In Deutsch. Vierteljahrschr. No. 3. 1844
8½ x 5½ : pp. 36-97.
- Hahn, C.** Aus dem Kaukasus. Reisen und Studien. Beiträge zur Kenntniss des Landes. Leipzig, Duncker & Humblot, 1892
9 x 5½ : pp. 299.
- Kaukasische Reisen und Studien. Neue Beiträge zur Kenntniss des kaukasischen Landes. Leipzig, Duncker & Humblot, 1896
9 x 5½ : pp. 293.
- Heer, J. C.** The Lake of Lucerne and the Forest Cantons. Album (édition de luxe). Zürich and Leipzig, Schröter, 1900
12½ x 9½ : pp. 331 : plates.
- v. Humboldt, A.** On two attempts to ascend Chimborazo. Translated by Dr. Martin Barry. In Edin. New Phil. Journ. Oct. 1837
8½ x 5½ : pp. 23.
- Hutton, W.** Remarks upon North Wales, being the result of sixteen tours through that part of the Principality. Embellished with a frontispiece view of Beddgelart, and three etchings of some of the principal mountainous views. Birmingham, Knott and Lloyd : London, Seeley, 1803
8½ x 5 : pp. xii, 246 : plates.
- Keller, Henri.** Description du Mont-Rigi, des chemins qui y conduisent, et de la célèbre perspective dont on jouit sur sa cime. Pour servir de texte explicatif au panorama de Henri Keller. Zurich, Fuessli, 1824
7½ x 4½ : pp. 90 : panorama, in black, 6½ x 74. In case, titled 'Édition originale, corrigée jusqu'au 1836.'
- Knight, William.** Through the Wordsworth country. A Companion to the Lake District. London, Sonnenschein, 1906
7½ x 5 : pp. xix, 268 : plates.
- Latrobe, Charles Joseph.** The Alpenstock ; or, sketches of Swiss scenery and manners, MDCCCXXV-MDCCCXXVI. Second edition.
6½ x 4½ : pp. x, 366 : 3 plates and frontispiece. London, Seeley, 1839
- Lee, Phineas F.** Personal experiences of the great Alps. Ascent of the Weissthorn. In Dewsbury Reporter. December 3, 10, 17, 24, 1881
- Leigh's Guide to Wales and Monmouthshire . . .** sixth edition : with considerable additions and improvements. London, Biggs, 1841
7 x 4½ : pp. viii, 386 : map, frontis.
- **Guide to the Lakes and Mountains of Cumberland, Westmoreland, and Lancashire.** Second edition, enlarged and improved.
7 x 4½ : pp. viii, 160 : maps. London, Leigh, 1832
- Lendenfeld, R. v.** Aus den Alpen. Wien, Tempsky : Prag, etc., 1896
2 vols., 10½ x 7½ : pp. xii, 487 : xii, 512 : plates, some col.
- M.** Gedanken über die vortheilhafteste Methode Gebirgsgegenden, insbesondere des Hochgebirge, schleunig aufzunehmen. In F. u. H. Mitt. Bd. 1, Nr. 3 u. 4. [? 1835]
- Macleod, Rev. Norman.** Mountain Loch and Glen, illustrating "Our life in the highlands" from paintings executed expressly for this work by Joseph Adam, with an essay on the characteristics of Scottish scenery by the Rev. Norman Macleod. Second edition, revised.
14½ x 11 : pp. (viii), 42 : 15 plates. London, Bell and Daldy, 1870
- Martel, E. A.** La vitesse de l'érosion torrentielle. Bergerac, Castanet, n.d.
9½ x 6½ : pp. 8.
- **Le puits de Padirac.** (Paris, Robert) n.d.
7½ x 4 : pp. 6 : ill.

- Martel, E. A.**, Padirac et les Gorges du Tarn. Extr. Tour de France, Juin et Sept. 1904. Rennes, Simon, 1905
 10 × 13 : pp. 16 : ill.
- L'eau. Étude hydrologique. Paris, Baillière, 1906
 9½ × 6½ : pp. 87–200 : ill.
- Sur la grotte d'Altamira. 22 février 1906
 9½ × 6 : pp. 6, reprinted from Bull. Soc. préhist. de France.
- Le grand cañon du Verdon. In La Nature, Paris, 34e année, No. 1712.
 11½ × 8 : pp. 241–247 : ill. 17 mars 1906
- Captage et protection hygiénique des eaux d'alimentation. France, Ministère de l'agriculture, Direction de l'hydraulique.
 11 × 7½ : pp. 21 : plates. Paris, Imprim. nat. 1907
- Les Cavernes des grès triasiques de Brive. Brive, Roche, 1907
 9½ × 6½ : pp. 15, reprinted from Bull. Soc. sc. de la Corrèze.
- La morve et les abîmes. In La Nature, Paris, 33e année, No. 1795.
 11½ × 8 : pp. 327–330 : ill. 19 Octobre, 1907
- Creusement des vallées et érosion glaciaire. Extr. C.R. Assoc. fr. p. l'avancem. d. Sc., Congrès de Lyon. Paris, 1908
 10 × 6½ : pp. 1239–1260.
- Le profil en long du grand cañon de Verdon. Extr. Ann. de Géogr. t. xvii. Paris, Colin, 15 Novembre 1908
 10 × 6½ : pp. 395–403 : plates.
- Rapport sur l'exploration souterraine hydrologique des Pyrénées en 1908. France, Ministère de l'agriculture, Direction de l'hydraulique.
 11 × 7½ : pp. 96 : plates. Paris, Imprim. nat. 1910
- Rapport sur la seconde mission pour l'exploration des Pyrénées souterraines (juillet-août 1909). France, Ministère de l'agriculture, Direction de l'hydraulique. Paris, Imprim. nat. 1911
 11 × 7½ : pp. 45–140 : plates.
- Notice sur les travaux scientifiques de M. Edouard-Alfred Martel.
 11 × 9 : pp. 103 : ill. Paris, Masson, 1911
- Les barrages et le cañon du Rhône. In La Nature, Paris, 40e année, no. 2021. 17 février 1912
 11½ × 8 : pp. 157–203 : ill.
- The above pamphlets have been most kindly presented by M. Martel, formerly a member of the Alpine Club.
- Mathews, C. E.** The story of Mont Blanc. An address delivered before the members of the Sutton Coldfield Institute, 20th January 1896.
 8½ × 5½ : pp. 22 : ill. Birmingham, Allday, 1896
- Matthew, George King.** The English Lakes, peaks and passes, from Kendal to Keswick. Kendal, Richardson, 1866
 7 × 4½ : pp. xi, 207, iv. : map, plates.
- Montémont, Albert.** Tour over the Alps and to Italy. London, Phillips, 1823
 8½ × 5 : pp. 78.
- Murray, John.** A glance at some of the beauties and sublimities of Switzerland : with excursive remarks on the various objects of interest presented during a tour through its picturesque scenery. London, Longmans, 1829
 7½ × 4½ : pp. xi, 282.
- Parker, Rev. Samuel.** Journal of an exploring tour beyond the Rocky Mountains, under the direction of the A.B.C.F.M., performed in the years 1835, '36, and '37 ; . . . with a map of the Oregon Territory. Ithaca, N.Y., published by the author, 1838
 7½ × 4½ : pp. xii, 371 : map.
- Paterson's Reisebuch für die Schweiz.**
 Edinburgh, Paterson : London, Stanford : Stuttgart, Kröner 1886
 6½ × 4½ : pp. xii, 164 : maps, etc.
- Raffles, Thomas.** Letters during a tour in some parts of France, Savoy, Switzerland, Germany, and the Netherlands, in the summer of 1817. Third edition. Liverpool, Taylor, etc., 1820
 7 × 4 : pp. xii, 270.

- Richardson, Ralph. Agassiz and glacial geology. Reprinted from Trans. Edin. Geol. Soc., vol. iv, pt. 3. Nov. 1882
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 245-252.
- v. Schütz, Karl. Reise von Linththal über die Limmern-Alp nach Brigels. Zürich, Orell Füßli, 1812
 8×5 : pp. 56.
- Seylaz, Louis. L'ascension du Mont Ararat. In Tour du Monde, Paris, n.s., 17e année, livr. 34. 26 août, 1911
 $12\frac{1}{2} \times 9$: pp. 397-408: ill.
- Simony, F. Verbreitung der Gletscher in Oesterreich. In Oesterr. Rev. Bd. 1. 1864
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 238-252.
- Das Dachsteingebirge. Ein Charakterbild aus den österreichischen Nordalpen. In Oesterr. Rev. Bd. 8. [? 1871]
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 219-228.
- Simplon. Guida da Milano a Ginevra pel Sempione. Milano, Artaria, 1822
 $10\frac{1}{2} \times 7\frac{1}{2}$: pp. xi, 176: 30 plates by Lory.
- v. Sonklar, C. Von den Alpen II. Ueber die Eintheilung der Ostalpen. In Oesterr. Rev. Bd. 4. 1864
 $8\frac{1}{2} \times 5\frac{1}{2}$: pp. 177-186, 196-210: map.
- Switzerland. Abhandlung von den Eisgebirgen und Gletschern des Helvetierlandes. Als eine Einleitung zu der Alp-Topographie. Neue Topographie Helvetischer Gebirge . . . I. Theil. Zürich, Herrliberger: Chur, Otto, 1774
 $8\frac{1}{2} \times 6\frac{1}{2}$: pp. xx, 38: 12 plates.
- Avis aux voyageurs en Suisse, Avec une nouvelle Carte des routes principales de la Suisse, où l'on a marqué les distances d'un endroit à l'autre. Gravée à Berne par Eichler, et se trouve chez l'Editeur, J. G. Heinzmann. $9\frac{1}{2} \times 5\frac{1}{2}$: pp. 38: map. Berne, Soc. Typogr. etc. Réimprimé 1799
- Neuer und vollständiger Wegweiser durch die ganze Schweizerische Eidgenossenschaft und die benachbarten Länder. Aarau, Sauerländer, 1828
 $7\frac{1}{2} \times 4$: pp. 184.
- Poles and tails; or, English vagabondism in Switzerland in the summer of 1854. By two of the vagabonds. (Printed for private circulation.) London, Billing, 1855
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. 81: 3 plates.
 This is a different edition from that already in the library, in which there are no plates, and in which the wording is not quite the same as in the above.
- A General outline of the Swiss landscapes; with miscellaneous notes and illustrations from M. De Saussure and others. Third edition, revised and considerably enlarged. London, Murray, 1912
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. xii, 312.
- Töppfer, R. Nouveaux voyages en zigzag à la Grande Chartreuse, autour du Mont Blanc, dans les vallées d'Herenz, de Zermatt, au Grimsel, à Gênes et à la Corniche. 2me édition. Paris, Garnier, 1858
 $10\frac{1}{2} \times 6\frac{1}{2}$: pp. xvii, 454: plates.
- [Tuckett, E.] How we spent the summer, or a voyage en Zigzag in Switzerland and Tyrol, with some members of the Alpine Club, from the sketch book of one of the party. 3rd edition, re-drawn. London, Longmans, 1866
 10×14 : pp. 40: ill.
- Tugwell, Rev. George. On the mountain: being the Welsh experiences of Abraham Black and Jonas White, esquires, . . . London, Bentley, 1862
 $7 \times 4\frac{1}{2}$: pp. viii, 262: 2 col. plates.
- Wales. Picturesque scenery in North Wales. Carnarvon, Humphreys [c. 1840]
 $5\frac{1}{2} \times 8\frac{1}{2}$: 29 plates.
- Williams, Helen Maria. A tour in Switzerland: or, a view of the present state of the government and manners of those Cantons . . . Second edition. London, Robinson, 1798
 $8\frac{1}{2} \times 5$: 2 vols.
- Zimmermann, J. G. Solitude. London, Vernor, etc. 1800
 7×4 : 2 vols., pp. xlviii, 330: iv, 334: plates.

Manuscript.

- Moore, A. W. Journal of a tour in Switzerland in the years 1860 and 1861.
 ——— in the months of June and July 1862.
 ——— in the months of June and July 1863.
 ——— Journal of tour in the Alps of Switzerland and Piedmont in June and July 1865.
 4 vols. of MS. with maps.

Subject Index of Club Publications and New Books.

* Indicates a new ascent.

- *Alg. Blanche de Pétérét: A.-K. Hochglück.
 *Alg. d'Entrèves: D. u. Oe. A.-V. Linz.
 *Alg. Gamba: A.-K. Hochglück.
 *Alg. Rouge de Triolet: A.-K. Hochglück.
 *Alg. Savoie: A.-K. Hochglück.
 *Alphorn: D. u. Oe. A.-V. Bergland.
 Alps: A. Lunn.
 Altai: J. G. Granö.
 *Altensteinsp.: D. u. Oe. A.-V. Reichensteiner.
 America, South: Sievers, W.
 Australia: D. u. Oe. A.-V. Baden.
 *Bernardinwand: D. u. Oe. A.-V. Akad. Sekt. München.
 *Bietschhorn: Akad. A.-K. Bern.
 *Blaubergstock: S. A. C. Basel.
 *Bocklarsp.: D. u. Oe. A.-V. Bayerland.
 Botany: Egyet. Turist. Egyesület.
 — Ung. Karp. Ver.
 — Verein z. Schutze.
 — H. Correvón, Plantes d. montagnes.
 — J. Hoffman, Alpenflora.
 Brandjoch: D. u. Oe. A.-V. Hochland.
 *Brunnkarköpfe: D. u. Oe. A.-V. Akad. Sekt. München.
 *Caccia grande: D. u. Oe. A.-V. Akad. Sekt. München.
 *Cadinsp.: D. u. Oe. A.-V. Akad. Sekt. München.
 *Camp. d. Camosel: D. u. Oe. A.-V. Akad. Sekt. München.
 *Camp. di Canali: Akad. A.-K. Innsbruck.
 *Camp. Socront: A. A.-V. München.
 — D. u. Oe. A.-V. Bayerland.
 Canada: H. Palmer, Selkirks.
 *Caucasus: Akad. A.-K. Innsbruck.
 — G. Carpentieri.
 — Russian Alpine Club.
 — O. Schuster, Reisewinke.
 Chalets: G. Baumeister, Das Bauernhaus.
 *Cima Bagni: D. u. Oe. A.-V. Reichensteiner.
 *Cima Codera: D. u. Oe. A.-V. Bayerland.
 *Cima d'Amola: D. u. Oe. A.-V. Linz.
 *Cima del Calvo: D. u. Oe. A.-V. Bayerland.
 *Cima Eötvös: D. u. Oe. A.-V. Akad. Sekt. München.
 *Cima Rossa: A.-K. Hochglück.
 *Cima Scarpaco: D. u. Oe. A.-V. Linz.
 *Coropuna: A. S. Peck.
 *Crepa di Lausa: A. A.-V. München.
 — D. u. Oe. A.-V. Bayerland.
 *Crozzon di Lares: D. u. Oe. A.-V. Akad. Sekt. München.
 *Dames d. Anglals: A.-K. Hochglück.
 *Daniel: D. u. Oe. A.-V. Bergland.
 Dent Blanche: Egyetemi Turista.
 *Dent de Moreles: Akad. A.-K. Bern.
 *Donnaturm: D. u. Oe. A.-V. Akad. Sekt. München.
 *Donnerkogel: A. A.-V. München.
 Eastern Alps: N. Krebs, Länderkunde.
 *Eisengabelsp.: Akad. A.-K. Innsbruck.
 *Eiskogele: D. u. Oe. A.-V. Linz.
 *Elferkopf: D. u. Oe. A.-V. Reichensteiner.
 England: W. T. Palmer, Cumbrian rock-climbing.
 *Enzianenturm: D. u. Oe. A.-V. Akad. Sekt. Wien.
 Equipment: C. A. I. Staz. Univers.
 — Camping.
 Fauna: J. Grinnell, Bighorn.
 Fiction: I. Kaiser, Vierge du lac.
 *Flachkogel: D. u. Oe. A.-V. Bayerland.
 *Flieschbank: D. u. Oe. A.-V. Bayerland.
 France: Savoie et Pyrénées.
 *Freyaturm: A.-K. Hochglück.

- ***Gatshkopf**: D. u. Oe. A.-V. Bergland.
 — D. u. Oe. A.-V. *Bayerland*.
 ***Gemelli**: D. u. Oe. A.-V. Akad. *Sekt. München*.
Geology: A. Heim, Karrenbildungen.
 — A. G. Högbom, Norweg. Kustenplatform.
 — B. Högbom, Bedeutung d. Frostes.
 — W. Hobbs, Arcuate mountains.
 — W. Kilian, Alpes françaises.
 ***Gerberkreuz**: A. A.-V. *München*.
 — D. u. Oe. A.-V. *Hochland*.
Glaciers: E. Kaminska, Schneedecke d. Karpaten.
 — V. Paschinger, Schneegrenze.
 — C. Rabot, Pelvoux.
 — Wieleitner, Schnee u. Eis.
 ***Glockerin**: D. u. Oe. A.-V. *Linz*.
Grabenkarsp.: D. u. Oe. A.-V. *Hochland*.
 ***Gramalersp.**: D. u. Oe. A.-V. *Bayerland*.
 ***Gr. Muveran**: Akad. A.-K. *Bern*.
 ***Gr. Cront**: A. A.-V. *München*.
Gr. Glockner: *Egyetemi Turista*.
 ***Gr. Greiger**: D. u. Oe. A.-V. Akad. *Sekt. München*.
 ***Gr. Grimming**: D. u. Oe. A.-V. *Linz*.
 ***Grosskarsp.**: D. u. Oe. A.-V. *Bergland*.
 — D. u. Oe. A.-V. *Hochland*.
 ***Grosslitzner**: D. u. Oe. A.-V. *Saarbrücken*.
 ***Gr. Priel**: D. u. Oe. A.-V. *Linz*.
 ***Grosswandeck**: A.-K. *Hochglück*.
 ***Gr. Wechnerkogel**: Akad. A.-K. *Innsbruck*.
 ***Gr. Windgalle**: S. A. C. *Basel*.
 ***Gr. Zinne**: A. A.-V. *München*.
 ***Grundübelhorn**: D. u. Oe. A.-V. *Bayerland*.
Guide-books: *Schneeschuh Verein München, Inntal*.
 — Baedeker, Tyrol.
 — Canada.
 — H. Kurz, Mont Blanc.
 — G. Lüthi, Säntisgebiet.
 — R. Roberts, Wales.
 ***Haldachstellwand**: D. u. Oe. A.-V. *Bergland*.
 ***Hasenohr**: D. u. Oe. A.-V. *Reichensteiner*.
Himalayas: I. Massieu, Népál.
 — K. Oestreich, Studien.
 — F. B. Workman, Great Rose.
 ***Hint. Schwärze**: Akad. A.-K. *Innsbruck*.
 ***Hochelshorn**: D. u. Oe. A.-V. *Bayerland*.
 ***Hochliss**: D. u. Oe. A.-V. Akad. *Sekt. München*.
 ***Hochkasten**: D. u. Oe. A.-V. *Linz*.
 ***Hoehwanner**: D. u. Oe. A.-V. *Bayerland*.
 ***Hohe Achsel**: D. u. Oe. A.-V. *Hochglück*.
 — D. u. Oe. A.-V. *Baden*.
Iceland: H. Spethmann.
 ***Innominata**: A.-K. *Hochglück*.
 ***Kaiserkopf**: A. A.-V. *München*.
 ***Kaltwasser**: D. u. Oe. A.-V. Akad. *Sekt. Wien*.
 ***Kaltwasserkarsp.**: D. u. Oe. A.-V. *Bayerland*.
 ***Karwendelköpfe**: D. u. Oe. A.-V. *Bergland*.
 ***Kaskarsp.**: Akad. A.-K. *Innsbruck*.
 ***Kl. Geiger**: D. u. Oe. A.-V. *Bergland*.
 ***Kleinelshorn**: D. u. Oe. A.-V. *Bayerland*.
 ***Kl. Halt**: D. u. Oe. A.-V. *Bayerland*.
 ***Kl. Leitersp.**: D. u. Oe. A.-V. *Bergland*.
 — D. u. Oe. A.-V. Akad. *Sekt. München*.
 ***Kl. Zinne**: A. A. V. *München*.
 ***Kopfwand**: D. u. Oe. A.-V. *Bayerland*.
 ***Kreuzwand**: D. u. Oe. A.-V. *Bergland*.
 ***Kridionsp.**: D. u. Oe. A.-V. *Bergland*.
Lake District: W. T. Palmer, Odd yarns.
 — H. Johnston, Travel films.
 ***Leitersp.**: D. u. Oe. A.-V. *Linz*.
 ***Linzerturm**: D. u. Oe. A.-V. *Bayerland*.
 ***Mädelgabel**: D. u. Oe. A.-V. Akad. *Sekt. München*.
Melzerwand: Akad. A.-K. *Innsbruck*.
 ***Mitt. Schosshorn**: D. u. Oe. A.-V. Akad. *Sekt. München*.
Mont Blanc: L. Kurz, Guide.
 — France, 1912.
 ***Mte Combolo**: D. u. Oe. A.-V. *Bayerland*.
 ***Morgenalpensp.**: D. u. Oe. A.-V. *Reichensteiner*.
Motoring: Carle, Routes d. Alpes.
 ***Mugonsp.**: D. u. Oe. A.-V. *Reichensteiner*.

- ***Mutmalsp.**: Akad. A.-K. Innsbruck.
- ***Nennerköfele**: D. u. Oe. A.-V. Reichensteiner.
New Guinea: H. A. Lorentz, Zwarte Menschen.
— J. J. S., Cartensz-Berg.
- ***Ob. Wettersteinsp.** D. u. Ae. A.-V. *Bayerland.*
- ***Palu**: D. u. Oe. A.-V. Linz.
Pamirs: H. v. Ficker.
- ***Passportenkopf**: D. u. Oe. A.-V. *Bergland.*
- ***Paternkofel**: D. u. Oe. A.-V. *Bergland.*
- ***Pentling**: D. u. Oe. A.-V. *Bayerland.*
- ***Piccol Cront**: A. A.-V. München.
- ***P. Albana**: D. u. Oe. A.-V. *Bayerland.*
- ***P. Campionigo**: S. A. C. Basel.
- ***P. Glüna**: D. u. Oe. A.-V. *Bayerland.*
- ***P. Grisch**: D. u. Oe. A.-V. *Bayerland.*
- ***P. Suvretta**: D. u. Oe. A.-V. *Bayerland.*
- ***P. Raiti**: D. u. Oe. A.-V. *Bayerland.*
- ***Piz Lasties**: D. u. Oe. A.-V. *Baden.*
- ***Plattentürme**: D. u. Oe. A.-V. *Saarbrücken.*
- ***Pleissensp.** D. u. Oe. A.-V. *Bergland.*
- Poetry**: D. W. Freshfield, Unto the hills.
— R. Baumbach, Reiselieder.
- ***Pte Alg. d. Glaciers**: D. u. Oe. A.-V. *Linz.*
- ***Pte d. Papillons**: A.-K. *Hochglück.*
- ***Pta d'Agnello**: D. u. Oe. A.-V. *Bergland.*
- ***Pta d. Fessura**: A. A.-V. München.
- ***Pta di Val Popena**: D. u. Oe. A.-V. *Bayerland.*
- ***Pta Isabella**: A.-K. *Hochglück.*
- ***Pta Minuta**: D. u. Oe. A.-V. *Hochland.*
- ***Putzenkarlescheid**: Akad. A.-K. *Innsbruck.*
- Pyrenees**: C. A. F. Côte d'Or.
— Cadier frères.
- ***Querkogel**: Akad. A.-K. *Innsbruck.*
- ***Rofan**: D. u. Oe. A.-V. *Bergland.*
- ***Rosskarturm**: D. u. Oe. A.-V. *Akad. Sekt. München.*
- ***Sass di Mezzodi**: D. u. Oe. A.-V. *Bayerland.*
- ***Sagschneid**: D. u. Oe. A.-V. *Akad. Sekt. Wien.*
- ***Sammetkopf**: D. u. Oe. A.-V. *Bayerland.*
- Säntis: G. Lüthi.
- ***Sattelkarsp.**: A. A.-V. München.
- ***Schafkersp.**: D. u. Oe. A.-V. *Akad. Sekt. München.*
- ***Schafkogel**: A.-K. *Hochglück.*
- ***Schlern**: D. u. Oe. A.-V. *Baden.*
- ***Schlüsselsp.**: D. u. Oe. A.-V. *Bergland.*
- ***Schneekarsp.**: D. u. Oe. A.-V. *Bergland.*
- ***Schwabenalpenkopf**: A. A.-V. *München.*
- ***Schwarwandeck**: A.-K. *Hochglück.*
— A. A.-V. München.
- ***Sonnenjoch**: D. u. Oe. A.-V. *Akad. Sekt. München.*
- Speleology**: E. A. Martel.
- ***Stäfelpass**: S. A. C. Basel.
- ***Stempeljochsp.**: D. u. Oe. A.-V. *Hochland.*
- ***Striehkogel**: A.-K. *Hochglück.*
- ***Suchiplaz**: D. u. Oe. A.-V. *Linz.*
- Tatra**: Ung. Karp. Ver.
— Egyetemi Turista.
- ***Temmelberg**: D. u. Oe. A.-V. *Linz.*
- ***Tête à Pierre Crept**: Akad. A.-K. *Bern.*
- ***Teufelsmauer**: D. u. Oe. A.-V. *Linz.*
- ***Thierkarhorn**: D. u. Oe. A.-V. *Akad. Sekt. München.*
- Tiefkarsp.**: D. u. Oe. A.-V. *Hochland.*
- ***Todtenkopf**: D. u. Oe. A.-V. *Linz.*
- ***Tofana di Fuori**: D. u. Oe. A.-V. *Bayerland.*
- ***Tofana di Fuori**: D. u. Oe. A.-V. *Bergland.*
- ***Totenkirchl**: D. u. Oe. A.-V. *Akad. Sekt. München.*
— A. A.-V. München.
- ***Torre d. Diavolo**: A. A.-V. *München.*
- ***Tritenkopf**: D. u. Oe. A.-V. *Akad. Sekt. München.*
- Valais**: D. u. Oe. A.-V. *Magdeburg.*
- Vierersp.**: D. u. Oe. A.-V. *Hochland.*
- ***Vorbergerhorn**: D. u. Oe. A.-V. *Bayerland.*
- ***Walderzunderkopf**: Akad. A.-K. *Innsbruck.*
- ***Wandisp.**: D. u. Oe. A.-V. *Hochland.*
- ***Wasserkarturm**: A.-K. *Hochglück.*
- ***Wolfebnersp.**: A. A.-V. München.
- ***Zahringzahn**: D. u. Oe. A.-V. *Bayerland.*

ALPINE NOTES.

'BALL'S ALPINE GUIDE.' VOL. I. 'THE WESTERN ALPS.'—Copies of the new edition (1898) of this work, price 12s. net, can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART I.—A new edition (1907) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of A. V. Valentine-Richards, Fellow of Christ's College, Cambridge, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes those portions of Switzerland to the N. of the Rhône and Rhine valleys. Price 6s. 6d.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART II.—A new edition (1911) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of the Rev. George Broke, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes 'those Alpine portions of Switzerland, Italy, and Austria, which lie S. and E. of the Rhône and Rhine, S. of the Arlberg; and W. of the Adige.' Price 7s. 6d.

THE ALPINE CLUB OBITUARY.—Trevilian, E. B. C. (1863).

THE MS. JOURNALS OF THE LATE A. W. MOORE FOR THE YEARS 1860 TO 1863 AND 1865 TO 1869.—The Committee has been fortunate enough to secure these very interesting records of the Alpine work of one of the greatest mountaineers of the time. The paper on the first ascent of the Gabelhorn is published in the current number, and it is intended to publish other of the papers from time to time, or the question of publishing the Journals of the more active years commencing in 1862 might be considered. A full list of the contents will be published in the November JOURNAL.

'MODERN MOUNTAIN CRAFT,' BY GEOFFREY WINTHROP YOUNG.—This book may be expected to appear in the autumn, and is certain to awaken very great interest in mountaineering circles. The publishers have been good enough to furnish an advance note of the list of contents: Preface; Management and Leadership; Weather; Training; Pace; Equipment (by Capt. Farrar, D.S.O.); Guided and Guideless Mountaineering; Rock Climbing; Unsound Rock; Unusual Rock; Climbing Down; Pegs and Aids; The Axe on Rock; Climbing in Combination; Corrective Method; Ice and Snow Craft; Glissading; Reconnoitring; Mountaineering in

Winter (by A. H. M. Lunn); Mountain Photography (by Sydney Spencer); Mountaineering in Tropical Countries (by A. F. R. Wollaston, M.D.); Mountaineering in the Arctic (Spitzbergen, by Sir Martin Conway); The Caucasus (by Harold Raeburn); The Mountains of Corsica (by George Finch); The Himalaya (by T. G. Longstaff, M.D.); The Mountains of Norway (by W. Cecil Slingsby); The Southern Alps of New Zealand (by Malcolm Ross); The Pyrenees (by Claude A. Elliott); The Rocky Mountains (by A. L. Mumm).

A NEW GUIDE TO THE PENNINE ALPS.—The Austrian Alpine Club announce that they have decided to issue a Guide to the Pennine Alps of much the same character as their admirable 'Mont Blanc Führer' already reviewed in this JOURNAL. The Editors are Herr Karl Greenitz, Dr. Leo v. Hibler and Dr. Richard Weitzenböck, and the book may be expected to appear in the spring of 1916. It is intended to illustrate the routes by means of marked sketches.

The Austrian Club requests the assistance of all mountaineers in furnishing any unpublished information as to expeditions, as well as any sketches or photographs such as are useful for the completion of the work.

Communications should be addressed to—Die Kanzlei des Ö.A.C., Getreidemarkt 3, Vienna VI., Austria.

'MONT BLANC FÜHRER,' or Guide-book to the chain of Mont Blanc, with fifty-three sketches of routes, lately published by the Austrian Alpine Club, and reviewed on page 118, is now kept in stock by Edward Stanford, Ltd., 12-14 Long Acre, W.C. The price is 8s. 6d.

'GUIDE DE LA CHAÎNE DU MONT BLANC' (new edition, revised, with thirty-nine sketches of routes), by M. Louis Kurz, just published, and reviewed in this number of the JOURNAL, is now to be had from Edward Stanford, Ltd., 12-14 Long Acre, W.C. The price is 10s.

THE COL DES CRISTAUX.—'La Montagne' 1913, 657 seq., contains an interesting note (with a sketch map and a sketch) by M. J. Wehrlin. It will be remembered that the first passage of the Col with descent to the Argentière Glacier was made by M. Fontaine with the late Jean Ravanel and Léon Tournier in 1904 and the first ascent from the same glacier by Mr. J. J. Withers with Adolf Andenmatten and Andreas Anthamatten in 1908.

Since then it appears to have been crossed once in 1911 and twice in 1913. M. Wehrlin marks on his sketch four routes on the Argentière side, lying, it would appear, extremely close to each other!

An interesting expedition is to ascend the Col from the Argentière Glacier, then follow the arête over Les Courtes to the Col des Courtes, and descend to the Glacier de Talèfre—or the Col taken in the

reverse way makes a very pretty addition to the now deserted high-level route from Chamonix to Zermatt.

THE TÜRMLIHORN (SIMMENTHAL).—It was stated in 'A.J.' xxvii. 430, in describing the fatal accident to Pfarrer Baumgärtner, that this peak was first ascended by Pfarrer Hürner. A reference to the 'Jahrbuch des S.A.C.' xxix. 266, however, shows that the first ascent was made by the MM. Montandon with some friends in 1893.

THE DENT BLANCHE BY THE W. FACE.—Reverting to the ascent recorded in 'A.J.' xxvi. 462, and to Mr. Freshfield's note in 'A.J.' xxvii. 240, the paper 'The early ascents of the Dent Blanche' by Dr. Coolidge in 'A.J.' xv. 64-68 can be studied with advantage.

It will be seen that of the six ascents recorded up to the end of the first week in September 1871, all but the first were by the W. face, the start having been made from Bricolla or a bivouac near it, and the S. arête not being touched until within a few feet of the summit.

PÈRE GASPARD, THE DAUPHINÉ GUIDE.—We learn with the greatest regret that this famous veteran had a paralytic stroke on November 11 when tending his sheep near the Fontaines Bénites. He is now confined to his bed unable to speak, although in full possession of his mental faculties. Only last summer, he made the ascent of the Tête de l'Étret and crossed the Col de la Muzelle to the Valjoutfray.

LE PARC NATIONAL DE LA BÉLARDE.—A project is on foot to form a National Park. The limits to be: on the E. the watershed from the Roche Faurio to the Crête des Bœufs Rouges; on the S. the watershed crossing Les Bans to Les Rouies; on the W. the arête on the W. of the Glacier du Chardon and the Vénéon to La Bélarde; on the N. the arête bounding the Glacier de la Bonne Pierre on its N. side. A serious attempt at re-afforestation will be made, and the park will, of course, be a close preserve. The experiment will be watched with great interest.

THREATENED INTERFERENCE WITH FREE ACCESS TO THE GROSSGLOCKNER.—A certain Herr H. Willers, junior, of Kanalstrasse, Bochum, Germany, has addressed a letter, dated May 20, to the Central Committee of the D.u.Oe.A.-V., stating that he has purchased 'the Grossglockner together with an adjoining district (Gebiet)' and that as he intends to stock it with game it will be closed to travellers from August 1. He expressed his willingness, however, to leave open certain routes of access, and requested the Central Committee to lay before him their proposals and wishes.

The Central Committee found on inquiry that the actual transfer of the v. Aichenegg estate, which includes almost the whole of the Pasterze, had not indeed taken place, and further declined to lay

before Herr Willers, junior, any proposal as to his intended interference with the right to use paths which either lead to huts standing on their proprietors' own ground or which have been regularly used for many years.

The neighbourhood of the Pasterze is well known as offering the very scantiest pasture, insufficient for any animal.

It will be easily understood that the claim has led to severe comment in the Austrian and German press, as well as to resolutions of various Councils and interpolations in the Tirolese and Lower Austrian Landtage.

Further developments will be watched with the closest attention. — 'Mitteilungen des D.u.Oe.A.-V.,' 1914, p. 169.

THE ALPINE CLUB OF CANADA.—The annual camp, to be known as 'Upper Yoho Camp,' is to be pitched at an altitude of 6700 ft. near timber-line in the Upper Yoho Valley about 18 miles from Field on the C.P.R., and is to last from July 21 to August 11.

The Yoho valleys are said to present the finest scenery in the main range, and among the peaks to be climbed are the President (10,287 ft.), Mt. Habel (10,361 ft.), Mt. Collie (10,315 ft.), Mt. Gordon (10,336 ft.).

A FAMOUS VETERAN.—The Rev. T. H. Philpott, aged seventy-two, a member of the English Alpine Club, who between 1863 and 1867 made several first ascents of the Alpine giants in the Bernese Oberland, has just returned to Grindelwald after a long absence to look at his conquests.

He made the only known ascent of the Silberhorn, 12,185 feet, from the north side in 1865. Owing to its great difficulty this feat has never been repeated. He was also the first to cross the Ebnefluh, 13,005 feet, which has only been accomplished since on one occasion, and the ascents of the Schmadrijoch, 10,863 feet, and the Agassizjoch, 12,630 feet, took him twelve hours.—*The Daily Express* Correspondent.

NOTES ON THE CAUCASUS.

THE KUISH (OR KWISCH) GROUP (CENTRAL CAUCASUS).—Dr. Oscar Schuster publishes in the 'Ö.A.Z.' 1914, pp. 161–6, an interesting review of what has been accomplished in this group, which lies immediately to the W. of the Ushba, on the route of the most frequented passes from the Baksan Valley to Suanetia, and which is probably the best explored of any of the Caucasian groups.

The peaks are more distinguished for the remarkable views they offer than for any particular difficulty, and it is to be hoped that

the proposal to build a small hut near the tongue of the Kuish Glacier can be carried out, as from it most of the summits of the group could be ascended. The hut could be easily reached from the Baksan Valley over the Betscho Pass.

Dr. Schuster refers the reader to the great works of Freshfield, of Merzbacher, and of de Déchy, to an article by Rickmers in the 'Zeitschrift des D. & Oe. A.-V.' for 1903, and to the splendid series of Sella photographs, for full topographical information.

The principal summit is the Dongus-orun, the E. peak of which (4442 m.) was first ascended by Donkin and Fox with the guides Fischer and Streich from the Dolra-tschala Valley (*cf.* Merzbacher's map) in 1888, shortly before the fatal accident which befell the party.

The W. (4437 m.) and highest peaks (4468 m.) were first ascended in 1891 from the Baksan Valley by Merzbacher and Purtscheller with the guides Kehrer and Unterweger.

In 1910 a splendid expedition was made by Dr. O. Hug and M. Casimir de Rham, who traversed the summits of Dongus-orun from one end to the other.

The following is a translation of Dr. Hug's note to Dr. Schuster: 'End of August 1910. From a main camp at point 2212, near the end of the Kwisch Glacier (Merzbacher's map), ascend to the rocky S.E. spurs of Ledösch-Tau (Freshfield's Ledesht). Good bivouac (about $\frac{2}{3}$ in. left of the w. in Kwisch).

'Ascend at first over moraine ($\frac{3}{4}$ hr.) and then glacier and névé to Pt. 3752, keeping always to the right bank of the Kwisch Glacier. From 3752 ascend direct the S. face of Pt. 4277 by a sort of steep névé slope, ending in a steep snow arête (about 5 hrs. from the bivouac). Pt. 4277 was named Nakra-Tau, but is also called Lesser Dongus-orun. Follow the steep narrow névé arête eastward to the saddle between 4277 and 4437, which latter ascend in one hour by its W. arête (rocks and snow, easy). From 4437 without any difficulty up 4468 (névé plateau) and 4442 ($\frac{3}{4}$ hr.). Then along the easy E. rock arête to Pt. 3805. Descent to the Dolra Glacier down snow slopes and easy rocks, and then bear E. along the N. edge of the glacier to the icefall, which turn on the N. and reach without difficulty the Betscho Pass route at Pt. 2417. Return to the bivouac in about 5 hrs. Enjoyable, easy expedition.'

Dr. Schuster is good enough to suggest the following new route: Camp high up in the Jusengi Valley (Freshfield's Oxengi) and gain the E. arête, mentioned above, by its steep N. flank. (See the illustration 'Dongus-orun vom Betscho-Pass,' 'Ö.A.Z.' 1913.) It is important to cross to the W. bank of the Jusengi torrent *low down*, as higher up it is almost impossible.

Of the other peaks the Tscharinda 3579 m. (Freshfield's Bak), the Zalmiag 3992 m., and the Leirag 3755 m. are the best view-points.

One of the best ascents in the group is the ascent of the first by its N. arête, well seen in the illustration in Merzbacher, i. 56. The view of Ushba is superb.

The Zalmiag has been already traversed (v. 'V. Jahresbericht des A. A.-K. Bern' and Afanasieff's '100 Kaukasus Gipfel,' p. 30).

The following details of the traverse of Leirag and Ledösch Taus are taken from a note to Dr. Fischer from Dr. Hug, who, with M. de Rham, made the expedition :

'Mid-August 1910. With C. de Rham. From the bivouac at P. 2212 at foot of Kwisch Glacier into the saddle between Lakra and Leirag. Ascent of Leirag—a rounded névé top, falling away steeply on the N.E. and W. sides—from S.E. up rocks. Along the E. edge of the névé up steep ice (partly hard snow) slopes into the saddle between Leirag and Ledösch Taus. [This is the Kwisch Pass crossed by Schuster and Wigner in 1903.] From here up easy snow slopes to the summit of Ledösch. Descent: Down the N.E. ridge to the Kwisch névé (the upper part easy rocks, then steep névé); finally the gently-sloping crevassed Kwisch névé and back to the bivouac. Times: Bivouac—Leirag 6 hrs.; Leirag—saddle $1\frac{1}{2}$ hrs.; saddle—Ledösch $\frac{3}{4}$ hr.; Ledösch—Kwisch-névé 1 hr.; névé to bivouac 3 hrs.'

Dr. Schuster thinks that it would be quite possible to pursue the journey over Nakra-Tau (4277 m.) and the summits of the Dongus-orun. MM. Hug and de Rham also ascended Merzbacher's Pt. 3849, incorrectly marked 3980 on the plate, Merzbacher, i. 56, and named it Dolra-Tau. No difficulties—time about 5 hrs. from the 2212 bivouac. They also followed the ridge to Pt. 3980, named Kwisch-Tau or Hewai.*

Dr. Schuster gives the following useful summary of the respective literature :

Zalmiag-Tau : 'Zeitschrift D. u. Oe. A.-V.' 1903 (Rickmers); 'A.J.' xx. (Rickmers); 'V. Jahresbericht A. A.-K. Bern' (Hug).

Lakra-Tau : 'A.J.' xx. (Rolleston).

Leirag-Tau : 'A.J.' xxii. (Wigner); 'V. Jahresbericht A. A.-K. Bern' (Hug).

Ledösch-Tau : 'A.J.' xxii. (Wigner); 'Zeitschrift' 1903 (Rickmers); 'V. Jahresbericht' (Hug).

Bak-Tau : 'V. Jahresbericht' (Hug).

Dongus-orun : Merzbacher, i. chap. 22; 'Jahrbuch S.A.C.' xli. (Weber); 'A.J.' xiv. (Donkin's route), see also 'Proc. R. G. S. 1889' with map; 'V. Jahresbericht' (Hug).

Little Tsharinda † : 'A.J.' xx. (Rickmers); 'Zeitschrift,' 1903 (Rickmers).

Great Tsharinda : 'A.J.' xvii. (Collier); 'A.J.' xxii. (Wigner); 'Mitteilungen des D. u. Oe. A.-V.' 1903 (Rickmers); 'Zeitschrift des D. u. Oe. A.-V.' 1903 (Rickmers); 'A.J.' xx. (Rickmers).

Nakra-Tau : 'V. Jahresbericht A. A.-K. Bern' (Hug); Fresh-

* Afanasieff, p. 28.

† Afanasieff, p. 31, but omitted in the index.

field's 'Exploration &c.' (Appendix); Merzbacher, i. chap. xxii.

Dolra-Tau: 'V. Jahresbericht A. A.-K. Bern' (Hug).

Kwisch-Tau (Hewai): 'A.J.' xxii. (Wigner); 'V. Jahresbericht A. A.-K. Bern' (Hug);

Tscharinda-Murkwebi Towers: 'V. Jahresbericht A. A.-K. Bern' (Hug).

Kogitai-Baschi (Ciat Baschi), 'Boll. C.A.I.' xxiii. (Sella); Merzbacher, i. chap. xxii.

Guide-books: Afanasieff's '100 Kaukasus Gipfel' (in German), Hahn's 'Short Caucasus Guide-book' (in Russian).

As to the passes in the district, the Betsho or Gulskey Pass and the Dongus-orun or Nakra Pass are well known. The N. side of the former is well seen in Freshfield's 'Exploration &c.', p. 10, where the pass lies on the extreme right.

The Kwisch Pass between Ledösch and Leirag Taus lends itself to the following interesting round: Betsho—Kwisch Pass—Nakra Valley—Dongus-orun Pass—Betsho Pass—Betsho. Pack animals can be sent over the Dongus-orun, and porters over the Betsho Pass. The ascent of Elbruz can be combined with this tour, as also the ascent of the still unconquered Kuarmasch (3719 m.) (Freshfield's Kuarmash), or the Dongus-orun-Baschi (3551 m.) above the Dongus-orun Lake (Merzbacher, i. chap. xxii.).

The Nakra side of the group has been hitherto neglected, and would no doubt offer interesting work.

I hope Dr. Schuster will pardon my making this somewhat lengthy extract from his article. He can scarcely be surprised if his writings on any mountaineering subject awaken the greatest interest, since they invariably contain much masterly instruction, based on close observation and profound research. I only regret that he does not see his way to embody his knowledge in a book that would be certain to rank with the great works of Freshfield, of Merzbacher, of de Déchy and others.—J. P. F.

EXPEDITIONS TO THE CAUCASUS IN 1914.—Besides Mr. Raeburn's expedition, we understand that Mr. and Mrs. Visser and two other members of the Dutch Alpine Club, with two guides, go out in August to Suanetia.

Herren Karl Egger and G. Miescher, the well-known members of the S.A.C., have also planned an expedition to the Tschegem (Freshfield's Chegem) district, crossing later to Suanetia, where they hope to do something in the Leksur district and then to ascend Kasbek.

The 'Orient Reiseklub' of Leipzig is organising a tour *via* Odessa and Batoum to Tiflis. Visits will first be paid to Erivan and Etschmiadsin, and the journey then made by motor-car over the Krestováya Pass to Vladikavkaz, returning by the Mamison Pass to Kutais. Some time will be available for mountain ascents. Departure from Odessa, August 17, returning September 13.

HIMALAYAN NOTES.

DR. F. DE'FILIPPI'S HIMALAYAN EXPEDITION.—The following is taken by permission from the 'Geographical Journal' for June: 'Winter in Skardu has been on the whole less severe than might have been expected. Towards the end of December there was a short period of cold days when the thermometer registered $+1.9^{\circ}$ Fahr. In January the temperature only fell to $+8.6^{\circ}$ Fahr. The air was always absolutely still; snow fell at short intervals, but always in small quantity. The sky, especially in January, was mostly overcast, and the mountain crests were covered with mist and clouds. . . .

'The mild winter, the small amount of snow, and the absence of storms allowed Prof. Dainelli to make extensive geological excursions. During November he explored the basin of Skardu; in December he went up the Shigar valley and its two main branches, the Braldoh and the Basha valleys, and inspected the terminal portions of the Biafo, the Baltoro and the Chogo Lungma glaciers. Finally, in January, he went up the Shyok valley from its termination in the Indus valley to Biandong (Ladakh), and on his way back ascended the Saltoro and the Nubra valleys up to the glaciers. These explorations, and those made later on in Ladakh, will lead to a general discussion and to the modification of some of the prevailing theories about the geology of this district. . . .

'Among other things, these excursions of Dainelli proved how easy it is to travel in these valleys during winter, and encouraged the expedition to make an early start from Skardu. . . . On the 16th, the expedition left Skardu, and, retracing its steps up the Indus valley, arrived on the 22nd at Kargil, situated in the Suru Valley, 8790 feet above sea-level.

'Four stages above Skardu, at Kharmang, the Indus was entirely frozen, and the ice was thick enough to allow horses and men to cross. These natural bridges occur more and more frequently higher up, and they make easy communications between villages of the opposite banks which are entirely isolated in every other season. Dainelli took advantage of this facility to explore a portion of the Indus valley between the confluence of the Suru-Dras and the confluence of the Hanu, which has been rarely, if ever, visited by travellers. . . .

'A halt of ten days was made at Kargil for the usual observations in gravity, magnetism, meteorology and aerology, and for another series of wireless transmission of time-signals. Here the lowest temperature was recorded on February 25 of 4° Fahr., and the heaviest snowfalls were observed, due no doubt to the neighbourhood of the Himalayan range. On March 5 the expedition left Kargil during a heavy snowfall, and after crossing the Nawika La (13,000 feet) and the Fobu La (13,435 feet), arrived on the third day at Lamayuru (Ladakh). Here from the 8th to the 18th another set of geophysical observations and of wireless experiments was made. . . .

'The whole expedition was again collected together at Leh (11,280 feet) on March 22. Dr. De'Filippi had arrived here twenty days in advance, to make the arrangements for transport. The supplies needed to feed men and animals from Leh onwards, and during the summer months in the Karakoram, had been collected in the preceding months. They amount to over fifty tons in weight, to which are to be added the provisions for the Europeans, the scientific equipment and camp baggage.

'It is very fortunate for the present expedition that the old route from Leh to the Karakoram Pass, by the Khardong La, the Nubra valley and the Sasir Pass, which was hardly suited for loaded animals, and was only opened to caravans in July, has now been replaced by a new road, which crosses the Kilas range by the Chang La and then follows the upper Shyok valley to the foot of the Depsang plateau, where it joins the old track. The Chang La, although 18,366 feet high, is very easily crossed during the summer. At present, however, it is covered with deep snow, and a track had to be beaten through it by a large number of yaks and coolies, over which the transport caravans have begun to cross the pass. This is only possible thanks to the very exceptional endurance both of men and of animals. . . .

'The second group of members of the expedition is expected to reach Leh by the end of April. It is composed of Major H. Wood, of the I.T.S., accompanied by two Indian surveyors; Professors Marinelli, geologist and Alessandri, meteorologist, and Mr. J. A. Spranger, topographer. Prof. Alessandri, the Director of the meteorological observatory of Monte Rosa and of the meteorological station of the "Magistrato alle acque" of Venice, has replaced in the expedition Prof. Amerio, who was first enlisted, and has been unable to leave Italy.

'It is hoped that all arrangements will be ready to allow the whole expedition to leave Leh early in March.'

THE BILAPHOND PASS AND THE NAME SALTORO.—Reverting to the note in 'A. J.' xxvii. 107, Mrs. F. Bullock Workman writes as follows: 'In the discussion following my paper on the Siachen or Rose Glacier in the February 1914 number of the "Geographical Journal" on p. 144 Dr. Longstaff says "the name Saltoro Pass has already been accepted by the Survey of India," in support of his application of the name Saltoro to the Bilaphond Pass. In this connection I would add a note by the superintendent of the Trigonometrical Survey sent me in May 1914, by Colonel Burrard, R.E., C.S.I., Surveyor-General of India, which expresses the opinion of the Survey of India on this subject.'

NOTE ON THE NAME SALTORO.—'The name Saltoro is frequently used by Montgomerie and others as the name of a river, and on Indian Atlas Sheet 44A S.W. (1868) and on a map in the "Geographical Journal" of 1864 it is used as the name of a district or tract of country.

It was first applied to a pass by Younghusband. He had been told that there was a pass from the Oprang valley into Baltistan, and, as he thought that it would give access to the Saltoro basin, he decided to call it by this name. It will be remembered that he was baffled in his attempt to cross the pass and so did not discover that he was mistaken in this idea, and that the Siachen Glacier, the main source of the Nubra River, lies between the basins of the Saltoro and the Oprang. From Sir F. E. Younghusband's remarks in the discussion which followed Mrs. Bullock Workman's paper on her visit to the Siachen Glacier (*"Geographical Journal,"* February 1914) he admitted that he called the pass Saltoro because it was the best name that occurred to him. It is clear therefore that if he had known the true lie of the land he would not have used this name.

'In the Survey of India map, published in 1890, to illustrate Sir F. E. Younghusband's explorations, the name Saltoro is given to a pass which is shewn as connecting one of the glaciers of the Saltoro basin with the Oprang Valley, no name is given to the glacier. This part of the map is based on Sir F. E. Younghusband's account, and naturally shows the same imperfect knowledge of the geography. In chart No. XX. of the Sketch of Himalayan Geography and Geology the name Saltoro Pass occurs, but this chart is derived from the above-mentioned map, so that the use of the name in it is not fresh evidence.

'It seems to be clear therefore that the use of this name for a pass depends wholly on Sir F. E. Younghusband's guess. In the Atlas sheet already mentioned (44A S.W.) the several glaciers of the Saltoro basin are named, one of them is called the Bilaphond. When that sheet was drawn it was not known what lay beyond and the topographical detail ceases at the watershed. We now know that at the top of the Bilaphond Glacier there is a pass which gives access to the Siachen. For this pass the name Bilaphond La is proposed by Mrs. Bullock Workman and as the name Bilaphond seems well established, it is quite appropriate that the pass should be called after it.

'The pass which Sir F. E. Younghusband attempted to cross must be on the other side of the Siachen Glacier and must lead over the main watershed, which separates the Nubra from the Oprang—India from Turkistan.

'Henceforward it would seem advisable to discontinue the use of the name Saltoro for a pass, and use it for the river only; to adopt the name Bilaphond La for the pass connecting the glacier of that name with one of the branches of the Siachen; and to await the definite discovery of a pass from the Siachen to the Oprang before considering what to call it.

G. P. LENOX CONYNGHAM.'

[The identical note appears in the *'Geographical Journal'* for June which adds that it 'has been forwarded to us by Colonel Burrard who expresses his concurrence with the views therein expressed.']

CLIMBING IN THE KANGRA DISTRICT, HIMALAYA. The following climbs have been carried out, besides others of lesser interest, by Lieut. H. D. Minchinton, 1st (K.G.O.) Goorkha Rifles, stationed at Dharmsala, Punjab.

'The district I call the Kangra Himalaya, of which Major Bruce's "Twenty Years in the Himalaya" gives an excellent description in the Dharmsala chapter. The district is like Major Bruce's Kaghan Valley, but only a one-sided valley, so to speak—the great Kangra wall, the S. side being the Kangra Valley. As a training ground it is splendid, but there is no glacier work close at hand. The snow work in May and June (the before-rains climbing period) requires much care.'

1908.

SLAB PEAK. First ascent. June 14.—About 15,600 ft. Bivouac at 10,000 ft. An easy snow climb, *via* Andrea Pass (15,200); descent of face by rock-ribs and snow couloirs in good condition; very good rock, moderate difficulty. Alone.

NEW PASS. First ascent and crossing. September 24.—About 15,450 ft.; with Riflemen Rabia Thapa and Gorja Gurung. Bivouac 11,000 ft.; easy rocks, except a few slabs here and there; ascent from S. descent on N. side; one hard slab, then névé; return *via* Andrea Pass.

TWO GUN PEAK, E. SUMMIT. First ascent. October 25.—About 16,000 ft., with Riflemen Rabia and Gorja. Bivouac 12,000 ft. before climb, 11,000 after climb. A fine peak resembling Aiguille de la Za, but face an impossible precipice of some 6000 ft. almost sheer. *Via* Andrea Pass to rock-rib running N. from peak to névé behind peak; up this, unroped, to summit, by a steep slanting gallery below crest of rib; not difficult; descent, roped, required much care.

ZWISCHENJOCHGRAT. First ascent. November 22.—A rock-rib, about 15,200 ft., separating the Andrea Pass into two little passes; crossed W. pass to névé behind, to strike bottom of rib; bivouac 11,000 ft., very cold, with Lieut. G. S. W. St. George. The hardest rock climb I have ever led up, only about 400 ft., but took us two hours. One traverse defeated second man, and I had to climb a difficult iced chimney and make a dangerous descent in order to extricate him. We suffered from cold and verglas, owing to lateness of season. Benighted half-way between pass and bivouac, but got in at 1 A.M.

1909.

THE MON. First ascent. May 8.—About 16,200 ft. The main and highest summit of the climb mentioned in Major Bruce's 'Twenty Years in the Himalaya,' p. 74. Bivouac 11,000 ft., with Riflemen Rabia Thapa, Juthia Thapa, and Harkalal Limbu. A long snow ascent, first half over easy avalanche débris, second half steep, bad snow on old snow, or rock slabs, which, with snow on them for last two hours of ascent, was very nasty. Descended to

névé on N. slopes, cut over a new gap in ridge (Juthia Pass) slightly E. of Andrea Pass. Just before getting to it last man slipped on very steep traverse in bad snow and pulled third man down, but Juthia and self managed to hold. 3000 ft. glissade down steep couloir nearly to bivouac.

SLAB. PEAK by E. arête, descent by S.W. arête and face. First traverse. May 30.—Bivouac 11,000 ft., with same three Riflemen. To Andrea Pass, whence E. arête of peak was followed to its summit; a good climb, with one very difficult pitch. Rabia had to change places with me on a steep slab and then lead (bootless) up a steep but short face—then up a chimney (still bootless, though it had ice on it) where he could make himself firm to assist rest of party. As last man on descent I used doubled rope on three occasions, though it would have been unnecessary for a good rock-climber.

1910.

TWO GUN PEAK, W. SUMMIT. First ascent. May 29.—16,000 ft. Bivouac 11,000 ft. with Hastbir Rana and Gorja Gurung. Same route as for E. summit; from this into gap and a scramble off second man's head on to W. summit, a huge block poised impressively over the tremendous face precipice. On reaching névé behind peak again, we crossed a new gap (Goria Pass) W. of New Pass, equal height, and glissaded for 2000 ft. Difficult exit from couloir *via* waterfall and unstable snow bridge.

THE MON, S. SUMMIT. First ascent. June 12.—About 15,000 ft., by S.E. ridge; descent by S.W. ridge and face. Bivouac 11,000 ft. with Hastbir. Began by 1000 foot descent and up an equal distance to strike foot of ridge. Last 2000 ft. very good rock climb, often difficult when Hastbir took lead. Had to traverse some 200 ft. up ridge connecting this and main summit before we could start down S.W. face by bad snow on ice and on slabs. After 1000 ft. got on to a good ridge and thence into a good couloir, and so down.

1911.

TWO GUN PEAK, BOTH SUMMITS. Bivouac 11,000 ft. with Captain Holderness, Hastbir and Rabia; *via* Andrea Pass to base of rock-rib, then up its crest, instead of by gallery as in two previous ascents, to summit. Return by gallery route to névé and Andrea Pass. No difficulty. Gallery required usual care.

1913.

HASTBIR HUMP. First traverse. May 11.—First ascent by me in October 1910. 15,500 ft. With Harkalal Limbu and Jaising Gurung. Up Andrea Pass, then E. along snow slope, rock and snow arête to summit. A short practice climb, but, as it was snowing and blowing hard, gave almost more practice than we wanted. Descended short arête to Juthia Pass and down steep couloir, first bad snow, then better, to bivouac and home; over 9000 ft. up and same down in 13½ hrs.

'S' PASS PEAK. First ascent. June 3.—16,200 ft. Lies above a pass known locally as 'S' pass, from its being at head of an 'S'-shaped patch of névé. Base camp at 11,000 ft. With Jaising over Andrea Pass, and over névé, fresh snow, to ridge running E. from peak; up this to summit; little ice on gentle slabs; thence down W. ridge; some nice bits of rock work to 'S' pass. Back by névé and Andrea Pass to camp.

DHARMSALA MATTERHORN. First ascent. June 6.—About 16,800 ft. Five previous attempts, in two of which I took part. Two are related in Major Bruce's book, p. 76 &c. From base camp with Jaising, Hastbir, and one Gaddi. Across Andrea Pass to bivouac, 13,500 ft., behind peak (12 hours' great exertion in soft snow, heavy work owing to late start and bad weather). Next day with Jaising up peak. Storm delayed start; snow soft; final arête, of snow in bad condition, required care. Ten hours from bivouac to top and back. Third day back to base camp, 8 hours in soft snow.

NEW ZEALAND NOTES.

THE ROUTES UP MT. COOK.—Reverting to the route marked 'Teichelmann' on the illustration opposite p. 228 in the last number, the following letter has now been received from the Rev. H. E. Newton, one of the party. This shows that his party did not follow the Linda route.

TO THE EDITOR OF 'THE ALPINE JOURNAL.'

DEAR SIR,—With regard to the note on the photograph of Mt. Cook published in the last number of the JOURNAL, our ascent was made in 1905, not 1906 (p. 227), and the route we followed did not touch the Linda Glacier at all. We followed Zurbriggen's route in the main, though, instead of starting at the foot of the rock ridge as he did * and following it throughout, we bore to the left and turned up below the first (small) hot plate, and after a little difficulty at the first schrund went up the snow, bearing slightly to our right, till we got on to the rocks, up the face of which we climbed till we struck the crest about the level of the 'Note on the Photograph,' p. 227, which is the lowest part of that ridge shown in the photograph facing page 228. From there we kept closely to the crest; in our descent, after a night out a little above where we joined the crest, we went straight down the snow, which was in very good condition, better than I ever saw it or recent photos show.

* Fitzgerald, *The New Zealand Alps*, pp. 323-4. Zurbriggen is mistaken in calling this 'Green's route,' p. 325.

Though Mr. Green and the New Zealand parties up to 1894 had failed by the Linda route only through lack of time, the Linda was never completely followed till Mrs. Lindon, with Peter Graham and D. Thomson, ascended by that route in 1912.*

I have not a spare photo of Mt. Cook showing that side; if it is of any use I will make one and mark in our route.

Yours very truly,

HENRY E. NEWTON.

The Vicarage, Helmsley, R.S.O., Yorks.

June 19, 1914.

ASCENTS IN 1914.—The following Record of Ascents in New Zealand made by Mr. Otto Frind, of Vancouver, B.C., with the guide Konrad Kain, has been kindly furnished by the latter :

1914.

- Jan. 7. Mt. Wakefield, 6575 ft. New route.
 „ 16. Up Murchison Glacier.
 „ 17. Two peaks Mt. Hutton, 9297-9276 ft. First ascent, first traverse.
 „ 18. *Via* Tasman Saddle, 8021 ft., to Malte Brun Hut.
 Feb. 7. Unnamed peak, 8646 ft., South of Mt. Sefton. First ascent.
 „ 9. Mt. Annette, 7351 ft.
 „ 11. Mt. Maunga, 8335 ft. First ascent.
 „ 15. Unnamed peak, 7657 ft., from Barron Saddle. First ascent, first traverse.
 Mt. Montgomery, 7661 ft. New traverse.
 „ 16. Mt. Bannie, 8300 ft. (aneroid). First ascent.
 „ 17. Mt. Darby, 8287 ft.; Mt. Sealy, 8651 ft. New traverse.
 „ 20-3. Mt. Cook, 12,349 ft., connecting Earle's and Green's routes.
 March 6. From Malte Brun Hut to lower Murchison *via* Tasman Saddle.
 „ 7. Mt. Mannering, 8704 ft. First ascent.
 „ 8. Unnamed peak, 8286 ft.; unnamed peak, 8157 ft. First ascent, first traverse.
 „ 9. Unnamed peak, 8552 ft. First ascent.
 „ 10. Mt. Acland, 8297 ft. First ascent and traverse.
 Unnamed peak, 8067 ft. Also first ascent and traverse.
 „ 11. Malte Brun Pass, 8302 ft., *via* Cascade Glacier to Malte Brun Hut. First crossing.
 „ 13. Mt. Häckel, 9649 ft. Second ascent, first traverse.
 „ 22. Mt. Sefton, 10,357 ft. Fifth ascent. New route.
 „ 23. Sharksteeth, lower peak, 8200 ft. (aneroid). First ascent.

All these ascents made with Mr. Otto Frind, Alpine Club of Canada.

* *A Climber in New Zealand*, p. 20, by M. Ross.

March 27. First ascent second peak N. from Copland Pass, 7373 ft., with the chambermaid and packer from the Hermitage.

March 28. Two peaks, Mt. Eric, over 8000 ft., with guide Tom Fish.

Konrad continues as follows :

'The mountains in New Zealand are fine. They have, like every mountain group, their own particular charm. But travelling in the mountains there means hard work in carrying. There are still hundreds of mountains to ascend. I may go out there again in October and shall be pleased to give any information to any member of the Alpine Club. The mountains are more or less dangerous from stones and avalanches, and the weather is very changeable. The best time for expeditions is February and March.'

REVIEWS AND NOTICES.

Pater Placidus a Spescha sein Leben und seine Schriften. Von Prof. Dr. F. Pretti und Prof. Dr. K. Hager. Benteli, Bern. 1913.

JUSTICE—tardy justice—has at last been done by his fellow-countrymen to one of the most remarkable of the precursors in the exploration and investigation of the High Alps. Pater Placidus a Spescha (A.D. 1752–1833) was a born climber—born, as the family story ran, under the sign of Capricornus ; but he was also an ardent student of Nature. Never did a student make a better use of his relatively few advantages, or struggle more courageously against disasters, arising out of the troublous times in which he lived.

The child of well-to-do peasants at Disentis in the Vorder Rhein Thal, Spescha sought a field for his intellectual activity in the Church, and gained some instruction at Chur and afterwards at Einsiedeln, before he returned to his native place to become a leading spirit among the brethren of the local monastery.

To do anything like justice to his career, to recount its picturesque incidents, the destruction by the French of his library and lithological collection, his banishment by the Austrians to Tyrol, the persecution he underwent in his convent on account of his liberal and tolerant attitude in matters of thought, or to give any account of his climbs, and of his many contributions to local history and natural science, would fill pages. Moreover, we are released from the task by the fact that it was partially carried out years ago in this JOURNAL (Vol. x. No. 74) in an article, partly founded on the late Prof. Theobald's volumes on Graubünden, that appears to have been overlooked by the editors of the book now under review in their list of tracts relating to Spescha. We shall limit ourselves,

therefore, to indicating very briefly the scope and method of the handsome volume which they put before the public.

It opens with a full biographical sketch of the Father, followed by appreciations of him as an historian and natural student and a list of the writings, mostly MSS., he left behind him. These, carefully edited, form the bulk of the work. First comes a history of the Convent at Disentis, then we have a monograph on the Tavetscher Thal followed by a description of the Passes of the Grauen Bund, numerous papers describing mountain ascents, hints for climbers' equipment, articles on avalanches and other calamities, and an account of Spescha's visit to Tyrol.

What most strikes the reader who looks over these papers is the many-sidedness of Spescha's interests and the extent to which he was before his time. It is curious, for instance, to find him planning a hut at the Puntaiglass Glacier, recommending warmly the top of the Lukmanier for the erection of an hotel and health-station, or suggesting to his convent that it should buy and develop the Tensniger Bad, a bathhouse which even forty years ago remained in a state of primitive simplicity worthy of Japan.

No pains have been spared by the publishers to make the book a worthy memorial of the old mountaineer. It is illustrated by two excellent portraits and a number of attractive facsimiles of coloured prints of the period and some very artistic photographs. We should have liked a view showing the south-western face of the Tödi, as an illustration of Spescha's repeated assaults on that noble mountain.

Guide de la Chaîne du Mont Blanc. Par Louis Kurz. Deuxième édition, revue et considérablement augmentée, avec 39 croquis dans le texte. Prix fr. 12. (To be procured direct from the author, 7 rue Saint-Honoré, Neuchâtel, Switzerland, or from Edward Stanford, Ltd., 12 to 14 Long Acre, London, W.C. Price 10s.)

Twenty-two years have elapsed since the first edition of this indispensable guide-book appeared, and while welcoming the new edition the mountaineer who is not quite certain whether he may still be counted in Sir Claud Schuster's 'middle age' puts aside almost with regret the rather dirty, much annotated and marked, somewhat greasy old volume that has been his companion on many a day of storm, of hardship, of unsullied triumph.

Of all the groups of mountains in the Alps there is none comparable to the great chain of Mont Blanc.

There you may learn all you need know of rock craft, of iceman-ship, of weather craft; there you may acquire all the almost imperceptible knowledge merging into intuition that on a great expedition arms your limbs, your eyes, your ears; all of which go to extend the never-ending education of the mountaineer. Of no other group known to me can this be said.

Although Mont Blanc, or any way Chamonix, is the goal of every

tourist, yet the mountains themselves, save perhaps the one route on Mont Blanc, are seldom overrun.

Very much attention has been paid to the group during the last twenty-two years, so that at the present time it is one of the best explored districts in the Alps. Of all these doings the new edition takes the most careful note, and it is pleasing to see that the author has obviously studied the *ALPINE JOURNAL* more closely than is the habit of many members of the Alpine Club.

I cannot find the omission of a single one of the many new routes that have been made during the last few years, while the references to the authorities are particularly complete. I would much have liked to see a star put against the references to other publications where a sketch or illustration is to be found.

The book is divided into seven sections, and it would have been more convenient if these sections could have been detached, as is the Baedeker practice. When on the Trélatête one is not so much interested in the Dolent as to want to carry a description of it. Authors so seldom consider our unhappy backs.

I notice very few misprints. On p. 174, at end of the first paragraph it should read 'A.J.' xxvii., not xxiv., and on p. xviii. of the abbreviations the famous A.A.-C.Z. finds no place.

The *format* is rather larger and more convenient than the old edition, and the book is generally well got up. The French is of the very simplest, and need not frighten any Englishman even whose linguistic abilities are moderate.

A new feature in the book is the thirty-nine route sketches. These are of very unequal value, and are generally not up to the standard of the sketches in other similar publications, *e.g.* 'Glerner Alpen' (1912). More use might have been made had permission been obtainable of the splendid series of marked routes published by M. Emile Fontaine in the 'Echo des Alpes.' Still we must not demand too much in the way of pictures from an entirely unsubsidised publication. The illustration of the most delightful and, under fair conditions, not very hard climb up the N. face of the Géant ought to show the line nearer the left-hand arête with a considerable horizontal traverse on a snow-covered ledge running across the face, from the end of which one strikes up the left hand of two gullies to gain the Col between the two summits. The traced route 3 on the E. face of the Aig. Blanche, p. 243, is very vague, and does not seem to be the line we followed.

M. Louis Kurz has published a most valuable book, and we are all indebted to him for the enormous trouble and care he has taken. It should be in the hands of every mountaineer, whether for use on the mountain or to study at one's leisure, for which purpose the references to authorities appear very comprehensive.

J. P. FARRAR.

PROCEEDINGS OF THE ALPINE CLUB.

A GENERAL MEETING of the Club was held in the Hall, 23 Savile Row, W., on Tuesday evening, May 5, 1914, at 8.30 p.m., the Rt. Hon. Lord Justice Pickford, *President*, in the Chair.

Mr. O. L. V. S. de Wesselow was balloted for and elected a member of the Club.

Sir EDWARD DAVIDSON said :—Gentlemen, before we proceed to the ordinary business of the evening I should like, with your permission, to interpose for a few moments. Since we last met in this Hall the King has been pleased, on the recommendation of the Prime Minister, to appoint our President to be a Lord Justice of the Court of Appeal and also to be a Member of His Majesty's Privy Council. In these circumstances I am quite certain that the Club, over which he so worthily and so ably presides, will desire to take the earliest possible moment of offering to him their most sincere and hearty congratulations on the signal distinction that has been conferred upon him. The advancement which has been so recently bestowed upon him is, I feel sure, merely a presage of further honours which will come to him in the future, and which we earnestly trust he may live many, many years to enjoy.

In my capacity as the immediate Ex-President of the Club I am told that, according to precedent, it is my privilege to offer on behalf not only of those members of the Club who are here, but for all members of the Alpine Club in whatsoever part of the world they may be, our joint and united congratulations on this most auspicious occasion.

For myself I am indeed very glad that it has fallen to my lot to convey our congratulations to the President on his new appointment, and I know that he will believe me when I say that no more pleasant or agreeable duty has ever fallen to me in the course of my life.

The PRESIDENT expressed his gratitude to Sir Edward Davidson and the members of the Club for their kindness to him on his appointment, and hoped that one result of it would be that he would be able to give more attention to the affairs of the Club.

He then said :—Before I call upon Mr. Mumm to read his Paper I have again to call the attention of the Club to the death of one of our members.

He was an old member of the Club and was probably unknown to many of the younger members. Mr. ALFRED CADDICK was elected in 1879. Though he had not climbed for many years, his interest in the Club was as keen as ever, and he always made a point of attending the Annual General Meeting in December and also the Annual Dinner. He died quite suddenly a few days ago.

There is another matter to which I must call your attention, and it is to ask you to return thanks to Mr. SYDNEY SPENCER for

the way in which he has managed and arranged our Exhibition. He has taken a great deal of trouble over the Exhibition, and he has the satisfaction of knowing that his efforts have been entirely successful. He has collected an admirable Exhibition, which has been admirably hung, and I am sure that you will all be as anxious as I am myself to pass a very hearty vote of thanks to Mr. Spencer for his work.

The vote of thanks was carried with acclamation.

Mr. A. L. MUMM then read a Paper entitled 'A Trip up the Whirlpool River,' which was illustrated by lantern slides.

Dr. J. NORMAN COLLIE said: This is a part of the Rockies that I have only seen in the very far distance. It is a part that few people have seen, and, in fact, there are only two climbers besides Douglas, viz. Professor Coleman and Mr. Mumm, who have ever been to the Athabasca Pass, for it used to be a very difficult pass to get to; but now, as it is only about fifty miles from Jasper, it seems rather strange that so few climbers have been there. It was thought that Professor Coleman had finally solved the mystery surrounding Mount Brown and Mount Hooker, but it seems now that Mr. Mumm has started a new hare, and the old theory that these mountains stood on either side of the pass may have to be altered. I think Mumm's ideas seem to be right, because from the photographs of the south side of the pass there does not seem to be any obvious peak; and the only two peaks that are there are on the north side, and these may be Mount Brown and Mount Hooker.

The weather in the Rockies seems to get worse and worse the farther north one gets. The weather near Mount Robson was worse than the weather we experienced near Mount Columbia. The mountaineering round Mount Robson and the Yellow Head Pass opened up by the Grand Trunk Pacific Railway will, therefore, have to be carried on under less favourable circumstances than those which obtain farther south. The farther south one gets the better the weather seems to be. Mumm seems to have been particularly unfortunate last summer in this respect.

One point I should like to impress upon members is that a great deal of the country photographed by Mumm was unknown, and there is still a great deal of unexplored country quite close to civilisation which now is not difficult to reach through the various valleys, but I have no doubt that very soon there will be quite a trail up the Athabasca and Whirlpool Valleys. If anybody is thinking of going out there I should advise them to go as soon as possible. There is one very fine piece of country, quite unknown, south of the Whirlpool, towards Fortress Lake, which Lake was discovered by Professor Coleman.

Some of the photographs Mr. Mumm has shown us this evening were very beautiful, and very typical of the Canadian Rockies.

Mr. GEOFFREY E. HOWARD said: Mr. President and Gentlemen,

I think Mr. Mumm is a little too modest about the map, as it was only his help that enabled me to make the sketch at all. I do not think there can be much doubt that the course of the North Whirlpool River is correct on the map, unless there is some phenomenal freak of Nature which diverts it from its well-marked valley.

As Dr. Collie has said, there is an enormous amount of work to be done out there, and although, so far as I was concerned, practically no climbing was accomplished on this trip, there were very interesting mountains on every side. I think myself that it will be quite a long time before the district is properly known, as at present one has to cut one's way to the mountains, and in this manner a good deal of time is lost. You see a mountain and say you will go up that: it looks quite easy, but the best part of the day has gone by the time you get out of the timber, and until trails are made it will always be this way. In another ten or fifteen years it may be quite a tourist centre, but if people go out there now they will have a much better time, as it is such a glorious country and is as yet quite unspoilt.

Mr. L. S. AMERY said: The only part of the Paper I can say anything about has reference to the beginning: that is, the route down the Grand Forks Valley. When I was there the first time with Keller we did go up some 1500 feet on the right-hand side of the valley mainly to avoid heavy timber and other obstacles. We got fine views of the west side of Mount Robson, and we also got occasional glimpses through clouds of all the range of peaks between the source of the North Whirlpool River and the route of the Tête Jaune Cache, but as the weather was very bad we were unable to get any clear views. I only mention this to show that we did get up some little way on that side. I quite agree with Mr. Mumm that there is a lot to be done out there. I think one of the best ways to get a good preliminary view of the Northern Rockies would be to start up the Grand Forks Valley and then work up on the left-hand (*i.e.* true right) side.

Mr. HUGH E. M. STUTFIELD said: Mr. President and Gentlemen, Mr. Mumm has made an interesting journey to what used to be a region of mystery. I well remember how, in the late nineties, I used to sit at the feet of Gamaliel—Dr. Collie, I mean—and heard a great deal about the Athabasca Pass and that queerly-named mountain tarn, the Committee's Punch Bowl. I pictured to myself in those days a narrow defile, flanked on either side by an enormous mountain, forming the portals of a natural gateway leading to the unknown country to the north; and I had dreams of some day climbing those mountains. Now, alas! the mystery, like so many other mysteries in our time, has been rudely dispelled. Of the two great peaks, one, Mount Hooker, appears to be a sort of second Mrs. Harris, having a very dubious existence; the other, Mount Brown, is shown to be a shocking old fraud. It is curious

to note how, in spite of all the proofs to the contrary, the legend of its great height still survives. Canadians were long unwilling to surrender the honour of possessing the highest peak in English-speaking North America, and to-day the British schoolboy is still taught that Mount Brown is king of the Canadian Alps. After Mr. Mumm's investigations, and the interesting Paper we have just listened to, there can be no excuse for the propagation of these very serious geographical errors. I congratulate him on his journey, and thank him for giving me a very pleasant evening.

The PRESIDENT said: As no other member seems to have anything farther to say on the subject, I will ask you to pass a very hearty vote of thanks to Mr. Mumm for his Paper. We have listened to him with the greatest interest. It is a new district, but I have no doubt that when trails are made it will soon be overrun with people, and I think it is much better to hear accounts of the country before it is overrun than when it is more easy of access. Mr. Stutfield told us that where the railway comes mystery goes, and I agree with him. I think Mr. Mumm's suggestion as to the solution of the question concerning Mount Brown and Mount Hooker is a very possible one, and I am sure there are a good many members who will desire to visit this new country. I will now ask you to pass a hearty vote of thanks to Mr. Mumm for his interesting Paper and the beautiful slides he has shown us.

The vote of thanks was carried with acclamation, and Mr. Mumm briefly returned thanks.

A GENERAL MEETING of the Club was held in the Hall, 23 Savile Row, London, W., on Tuesday evening, June 9, 1914, at 8.30 P.M.; the Rt. Hon. Lord Justice Pickford, *President*, in the Chair.

The following candidates were balloted for and elected members of the Club, viz.: Dr. G. O. Dyhrenfurth, Mr. V. Le Neve Foster, and Mr. D. G. Murray.

The PRESIDENT said: I am glad to say, and I think it is the first time since I have had the honour of occupying this Chair that I have been able to say so, that there are no deaths among the members of the Club to report. I think it is a matter of great satisfaction to us all.

The next matter I have to mention is that we have amongst us this evening two climbers from Japan, introduced by our member, the Rev. Walter Weston—Mr. Kondo and Dr. Tsujimura, who are members of the Japanese Alpine Club. We are very glad to have an opportunity of welcoming them here. They have both done a great deal of climbing in Japan, and they intend to do more climbing in Switzerland this year, and I am quite sure that any members of the Club who meet these gentlemen in Switzerland or elsewhere will be only too delighted to do anything that is in their power to make things pleasant and comfortable for them and to give them any assistance they may require. I may say that

Mr. Kondo has brought over some slides representing climbing in the Japanese Alps, and he has very kindly offered to show them to us at the informal meeting on June 23. I am quite sure that his slides will greatly interest many of the members, and I have no doubt that a good number will avail themselves of the opportunity of seeing them.

I feel that we ought not to let this occasion pass without recognising the honour that has been conferred on a very old and valued member of the Club. Mr. Douglas Freshfield has been a member for a great number of years now, and has done a great deal of climbing and exploring. He has held the offices of President, Vice-President, and Editor of the JOURNAL, and has been a constant attendant at our meetings. I think that the Club will be glad of the opportunity of recognising the honour that has been paid to him in his election to the Presidential Chair of the Royal Geographical Society, and I propose a hearty vote of congratulation to him.

This was carried with acclamation.

The PRESIDENT then said: I now have to bring before your notice for confirmation the arrangements for the Winter Dinner as set forth in the circular dated May 22, 1914, a copy of which has been sent to each member. If there is no objection I will declare them carried.

The Winter Dinner arrangements were carried *nem. con.*

Mr. WM. T. KIRKPATRICK then read a Paper entitled 'On the Outskirts' which was illustrated by lantern slides.

The PRESIDENT said: Some members of the Club, I think, must know this district, and we shall be very glad to hear their remarks on it.

Sir EDWARD DAVIDSON said: As the President has called upon me to try to set the ball of discussion a-rolling, I feel bound to obey his commands, although I have very little to say. Some years ago (I think it was in 1899) I went up Monte Viso by the same route as that by which the reader of the Paper made his ascent. It is extremely easy, and although we had a rope with us we did not put it on either going up or coming down. The view from the summit, which we were fortunate enough to enjoy in perfection, was indescribably beautiful—one of the very finest that I have ever seen, and this far more than compensated for the dirt, the food, the flies, and the other horrors to which Mr. Kirkpatrick has so eloquently adverted. In most of these North Italian villages or hamlets the sign of the principal inn is 'Al Gallo' and the tough old rooster which swings crowing on its signboard is only too typical of the staple *pièce de résistance* which awaits the unfortunate wayfarer. I think that I have now fulfilled my orders, and I trust that Mr. Hope, who took part in this series of ascents described in the very interesting Paper which has just been read, may be induced, as he is here to-night, to say a few words to us about them.

Mr. R. P. HOPE said: I have not much to add to what Mr. Kirk-

patrick has said. Mont Aiguille is, I consider, well worth doing as a training walk ; it can be done in one day from Grenoble. It is only two hours from Grenoble to Clelles on the way to the Central Dauphiné Alps. To get to Monte Viso from Dauphiné, it would be best to reach the railway from Vallouise. Thence one rather long day will take you to the Italian Club Hut with the help of the motor-bus to Abriès, and crossing the frontier by some col further south than the Col de la Traversette. It is not advisable to descend the Forcioline glen late in the evening. Mr. Coolidge found it troublesome many years ago, and it is a bad place to get down in the dark.

The Brec de Chambeyron has little interest, except that it is probably the only mountain for the ascent of which a reward has been offered. A reward of 200 frs. was offered by some section of the French Alpine Club to anyone making the first ascent. Mr. Montagnier made a new route up from the French side, but apparently a very dangerous one. The ordinary route is very round-about, though the couloir we descended would save a lot of time, if the conditions were safe. It might be possible to ascend by a couloir that joins it on its left bank low down, and comes apparently from near the summit. Maljasset is a horrible place, and the country all round is very dull and desolate. The Sirac is best done from Le Clot, as the ascent from the south is very long and dull. Though Mr. Coolidge, in the 'Climbers' Guide,' advises 'the couloir or the rocks on its left,' I see that in the account of his ascent in the 'A.J.' he says he kept to the rocks. The top part of the couloir is very steep. The chief thing that impressed me in these parts was the bad accommodation. Each night we hoped for something better than the last and got something worse.

The discussion was continued by Sir ALEXANDER KENNEDY, Dr. T. G. LONGSTAFF, and Capt. J. P. FARRAR.

The PRESIDENT said : If nobody else has anything to say I will ask the Club to pass a very hearty vote of thanks to Mr. Kirkpatrick for his Paper, which has been very properly described as fascinating. We have all listened to it with the greatest interest ; it has contained a very great deal of information and a very great deal of real, unforced humour, two excellent characteristics. We have all listened to the Paper with very great pleasure, and I feel sure you are all anxious to join in passing a very hearty vote of thanks to Mr. Kirkpatrick.

The vote of thanks was carried with acclamation. Mr. Kirkpatrick briefly returned thanks, and said that he specially wished to acknowledge his indebtedness to Monsieur Henri Ferrand, of Grenoble, who had most kindly lent him several very interesting slides which had been so much appreciated by those present.

Digitized by Google



Mt. Robson.
(from peak climbed 9th Aug.)



A. L. Mumm, photo.

Loan Electric Engraving Co. Ltd.

Peak climbed 9th Aug. on the left;
Mumm's Peak on the right; Robson Glacier in foreground.

THE ALPINE JOURNAL.

NOVEMBER 1914.

(No. 206.)

A TRIP UP THE WHIRLPOOL RIVER.

By A. L. MUMM.

(Read before the Alpine Club, May 5, 1914)

ON Sunday August 3, 1913, I arrived with my old friend Moritz Inderbinen at the camp of the Alpine Club of Canada.* The events which made that camp memorable, the three climbs on Mount Robson, have already been described by Conrad Kain,† and the rest of its story will be told in its proper place in the 'Canadian Alpine Journal.' Favoured by an exceptional spell of fine weather, it was brilliantly successful, and I cannot refrain here from expressing my regret that so few of our members were able to respond to the invitation of our Canadian friends to be present at it. Of my own doings there, there is little to be said. The day after our arrival we took a much needed training walk as far as the gap now known as Snow Bird pass, first visited by Inderbinen and L. S. Amery four years before. There is a way round from it back to the camp by the Coleman glacier, and this was a very popular excursion last year, but no one, so far as I am aware, has yet made the complete passage to the W. fork of the Moose river by the way we came up in 1909. As we were returning, one of the peaks in the range facing Mt. Robson on the N. attracted my attention: it made a gallant show, and as I knew that it was the only one of the main summits of that range which had not

* *A.J.* xxvii. 123, 261, 329.

† *Ante*, p. 35.

been climbed in previous years I was rather surprised to learn that no one had yet been up it. I made up my mind to annex it, and succeeded in doing so, with Miss Phina Pearce and Mr. F. W. Godsal, on August 9, the day before the camp broke up.* With the exception of some very large and treacherous crevasses, into one of which Inderbinen disappeared and from which he emerged *minus* the legs of my camera, and considerably disgusted at having been taken unawares, the ascent presented no features of interest, but it gave us an extremely enjoyable day, and I must make as much as I can of it, for it was the only climb that I made from the Robson camp, and the only complete 'new expedition' above the snow line that we succeeded in accomplishing during the whole summer. As there was an embarrassing tendency to take it for granted that I must be burning to attack Mt. Robson, I feel bound to record that after a fortnight of continuous travelling, having only five or six days at my disposal, I felt no inclination whatever to try conclusions again with that redoubtable peak. My ambitions with regard to it were limited to finishing it off photographically by getting views of it from Mt. Resplendent, and if possible also from the heights above the lower portion of the Grand Forks valley. Humble as they were, they were not destined to be gratified. The day we started for Mt. Resplendent (August 6) the long spell of fine weather, which had lasted all through July, came to an end, and a violent snowstorm drove us back when we were near the head of the Robson glacier. This was a grievous disappointment; the view from this peak is possibly the finest of all and has never yet been taken. Not for nothing did Mr. Wheeler say that I was a Hoodoo where Mount Robson is concerned. (The best definition I know of a Hoodoo is that it is the exact opposite of a mascotte.)

The other project never came within the range of practical politics, but the fact that the crest of the range on the W. side of the Grand Forks valley has only been visited once, and then with topographical rather than mountaineering aims, deserves few words of comment, as it is a rather striking illustration of the way in which a mountain may be indirectly affected by the topography of the adjacent country. From the plain on which the camp was situated, and which has been the starting point of all attacks on Mt. Robson, to the floor of the Grand

* It is the northernmost point of the Continental Divide between Mount Gendarme and the White Horn Station on Mr. Wheeler's map, *A.J.* xxvi. 404.

Forks valley there is a very steep drop of between two and three thousand feet. Till last year—when a road up it was constructed by Donald Phillips, Mr. Kinney's companion in his ascent of Mt. Robson—the descent involved some actual climbing, and had only been effected twice, by L. S. Amery and a man called Keller in 1909, and by Mr. Wheeler and his companions in 1911. Now the first visitors to Mt. Robson in 1907 were the only ones who approached it by way of the Grand Forks, and they very naturally abandoned that line of attack, which looks anything but promising from the bottom of the valley, in favour of one which gave them a base nearly 3000 ft. higher. The later parties were generally in a bit of a hurry, and their main pre-occupation was to be on the spot if the weather improved. I do not think that it entered the heads of any of them—it certainly never entered mine—to seek for the solution of the riddle of Mount Robson on the heights near the entrance of the Grand Forks valley. Consequently, no complete reconnaissance of the W. face of Mt. Robson has yet been made: even Mr. Wheeler only saw enough of it to convince him that Mr. Kinney's route was the wrong one, and never realised that the true line of attack was to be found farther down the W.* face, where it was gradually worked out by the three parties who were on the mountain last year. To go into the matter at length would occupy too much space, but I believe that any one who studies carefully the history of the successive attempts on Mt. Robson will agree with me that if the upper plain had not been cut off from the Grand Forks valley in the way I have described, that history would have been entirely different. The whole story confirms and illustrates in a remarkable manner Clinton Dent's dictum, 'The worst way to reconnoitre a mountain is to go actually on it.' †

The camp broke up on Sunday August 10, and a large crowd of us assembled a little before 7 P.M., in a deluge of rain, at Mt. Robson station to await the train on its way back from Tête Jaune Cache. There we learned that the train was still somewhere in the neighbourhood of Jasper, and might arrive towards midnight, or might not arrive at all, a huge boulder having fallen on the line just in front of the engine. (It transpired later that a very ugly catastrophe was only just averted by the skill and presence of mind of the engine-driver.) Fortunately, the rain ceased and a large fire was built close to the station,

* See the view from Little Grizzly Station, *A.J.* xxvi. 402.

† *A.J.* xiv. 433.

round which we pretended to be spending a last evening in camp. But everyone was relieved when at 11.30 the train appeared ; we scrambled in and went to bed ; the train completed the journey to Tête Jaune Cache, and eventually Howard, Inderbinen and I turned out on to the deserted platform at Jasper at 6 on Monday morning instead of 9.30 on Sunday night. It speaks well for the enterprising spirit of Jasper that before we left they had picture post-cards representing the engine blocked by the boulder on sale at the post-office.

The country we had just left is well shown on Mr. Wheeler's map already referred to, and its relation to the regions to the S., which were explored by Dr. Collie and others between 1897 and 1903, can be seen at a glance by comparing the small inset map with the map in Dr. Coleman's well-known book 'The Canadian Rockies, New and Old Trails.' The most northerly piece of exploration carried out in those regions was Dr. Coleman's own journey to the Athabasca pass at the head of the Whirlpool river in 1893, described in his 23rd and 24th chapters, when he finally ran down Mt. Brown. In olden times the Athabasca pass was one of the regular trails of the Hudson Bay Company. They had stations on the Athabasca river (the remains of one of them, the Henry House, were visible five years ago, and perhaps are still, a few miles below Jasper), and they used the Yellowhead pass to get to the valley of the Fraser, and the Athabasca pass to get to that of the Columbia. Everybody now knows the story of the botanist David Douglas who came up from the Columbia over the Athabasca pass in 1827 ; how he found the two great peaks, Mt. Brown and Mt. Hooker, 15,000 ft. and 16,000 ft. in height ; how he ascended one of them alone, starting at 1 o'clock in the afternoon ; and how these two giants found their way into all the atlases, and remained there for fifty or sixty years. People used the word 'ascent' loosely in those days, but still Douglas does speak expressly of 'the view from the *summit*,' which he considered to be 'of too awful a cast to afford pleasure.' I shall return to Douglas and his doings later ; for the present it is only necessary to say that Dr. Coleman was disabled by an accident and could only make the journey up the Whirlpool valley and back, and though his companions climbed Mt. Brown, the mountains which separate the Whirlpool-Athabasca-Miette valleys from the basin of the Yellowhead lake and the head-waters of the Fraser have remained almost entirely unexplored ; the same remark applies

even more fully to the very striking range which shuts in the Whirlpool valley on the other (S.E.) side.

My interest in this region was first awakened when I was on my way to Mt. Robson in 1910. Dr. Collie wanted to stop at the narrows of the Yellowhead lake * for a day's fishing, so I took the opportunity to climb one of the peaks of the Yellowhead mountain, and from it I saw across the lake, fifteen or twenty miles away, a magnificent peak which, as we ascended, gradually dominated the whole landscape, and reduced Mt. Pelée to comparative insignificance. Its dark rocky face, too steep for any snow to rest on it, seemed to be quite worthy to be compared with the Southern face of the Meije. I had never heard of this mountain before. It is the Mt. Geikie of Mr. Wheeler's map, but is quite distinct from the peak overlooking the Athabasca which is so conspicuous from Jasper, and is there generally known as Mt. Geikie. Throughout the rest of this paper I have followed local usage and referred to the latter peak as Mt. Geikie.†

That season and the next our path lay northward and I did not see the big mountain again, but last year I thought that my chance had come to make its closer acquaintance: I should have some weeks after the Robson camp was over, and could not do better than devote them to the last bit of unexplored country between the Canadian Pacific and Grand Trunk Pacific railways. I had been corresponding for some time on the subject with my old friend John Yates, the well-known packer of Lac St. Anne. My original idea was either to make for the big mountain by following up the Fraser to its head, or to go

* There is a view of this part of the lake in *A.J.* xxv. 297. The 'Mt. Pelée' of the picture is Mr. Wheeler's Mt. FitzWilliam.

† The name 'Mt. Geikie' first appears on Mr. McEvoy's *Survey of the Yellowhead Pass Route*, made in 1893, and there coincides in position with the big mountain. For reasons which it is now needless to set out, I had come to the conclusion that this coincidence in position was fortuitous, and that Mr. McEvoy intended the name for the mountain visible from Jasper, the Mt. Geikie of this paper, and not for the big mountain, of the existence of which I thought he was probably unaware. I had just finished this paper when I learned that I was mistaken, and that Mr. McEvoy did see the big mountain and locate it by survey methods, and bestow on it the name of Mt. Geikie, which it will bear in future. It must therefore be clearly understood that my Mt. Geikie is not the genuine article; I have retained the name for convenience' sake, as I do not know what else to substitute for it.

straight at it from the upper end of the Yellowhead lake, and, later, to push on to the W. of it and, if possible, find a way through to the upper part of the Whirlpool river, so as to return by the Whirlpool valley after paying a visit to Mt. Brown. Yates, however, threw cold water on these suggestions, urging that the only definite information we had was that the travelling in the upper Fraser valley was extremely bad, that all the rest of the country was quite unknown, and that we might easily find ourselves obliged to return to Jasper having accomplished nothing and arrived nowhere in particular, and with not enough time left to make a fresh start; whereas if we reversed the route and started up the Whirlpool, we could prospect for a way through as we went along, and at the worst would make sure of reaching the Athabasca Pass and Mt. Brown. I accepted Yates's views unreservedly and he was now waiting for us at Jasper. With him were J. F. Dickinson, commonly known as Dick, and George Follie, capital fellows both and very competent; I hope I may have the pleasure of travelling with them again. Fred Stephens was expected to arrive at any moment to take charge of Howard, who had no very definite projects on hand and to my great satisfaction decided to cast in his lot with us. Monday and Tuesday were wet and we spent most of our time in endless topographical discussions with Colonel Rogers the Parks Commissioner, Jack Otto and others, of which Howard has written a very lively description which I hope will one day appear in the 'Canadian Alpine Journal.' One result of them was that the ascent of Mt. Geikie now began to assume a prominent, if not the foremost, place in our programme, but the only tangible piece of information which emerged was that a short distance above Jasper there was a way through the mountains to the Yellowhead basin, which had been recently taken by Donald Phillips. There are three minor creeks which descend to the Athabasca between the Miette and the Whirlpool; apparently the route referred to goes up the first of them.

On Wednesday, August 13, we got under weigh, and the very next day an incident occurred highly characteristic of Rocky Mountain travel. The third of the creeks just mentioned comes down from the glacier at the foot of Mt. Geikie; it must have been crossed several times already that summer, but no one had mentioned it to us as even a possible obstacle. We found it a furious raging torrent which would have swept the strongest of horses off his feet in a moment. There was nothing to be done but wait, so on the 15th we left the packers to deal with the situation if they could and started to go up a neighbouring

hill from which we reckoned on getting an instructive view of Mt. Geikie and other things. We followed the bed of No. 2 Creek for a couple of hours in order to avoid some very obvious windfall and then scrambled out at a point where it looked as though we should be able without much difficulty to reach open ground, but what we found was an endless expanse of windfall of a peculiarly vicious type cunningly masked from below by young jack-pine growing up among the fallen tree trunks. We struggled on for nearly an hour and in that time progressed perhaps two hundred yards, so we gave it up as a bad job. Another characteristic incident. We had just advanced far enough to see that No. 2 Creek also took its rise in a glacier, and one of considerable size, whose existence was quite unsuspected; our time would have been well spent if we had continued up the bed of the stream and made a fuller inspection, but too much had been wasted in the windfall for such an excursion to be possible that day. On our return we found the others safely encamped on the far side of Creek No. 3; it had gone down a little in the night, and they had assisted nature by tearing down a log-jam and so diverting a good deal of the water into another channel.

By now it was evident that any attempt to ascend Mt. Geikie from the Athabasca valley would be mere waste of time; we could only hope that the N.W. ridge, the obvious route to the top, might be more accessible from the other side. So starting again on the 16th we arrived at about 1 o'clock at the mouth of the Whirlpool river, which runs parallel with the Athabasca for some distance before joining it, then, after crossing a wooded spur, descended again to the water's edge, and found ourselves in the jaws of the Whirlpool valley. It was an interesting day, but beset with petty mishaps: two of the horses, one of which carried my bedding, made a determined attempt to drown themselves in the river; the tent which Inderbinen and I occupied was lost; and last and worst we had to camp after a hard march at an uninviting spot where there was no feed to speak of for the horses. It was a long and tiresome job to collect them next morning; we started late and pulled up at the first decent-looking camping-place at 3 in the afternoon. The proper thing to do is to camp just above the junction of the two rivers and push on through this inhospitable tract in a single day, but the check at No. 3 Creek had thrown the outfit out of its stride. That day too had its incident, which came near to being more than a minor one. The point of a fallen tree caught in one of the packs, and the horse, pushing stolidly

forward after the manner of pack-horses, dragged the tree on till it was bent like a bow. I could just get a glimpse of what was going on; the tree, at length released, swung back with great violence, and there was a dull thud. I thought, 'One of the horses has had a nasty crack,' and two seconds later was horrified to see Howard coming towards me with a dazed expression on his face, and a large red wound in the middle of his forehead. Fortunately, the tree only reached him at the end of its swing back, and not much damage was done, but it was a near thing.

We had now come to the end of the solid block of mountain which had been towering above us since we entered the Whirlpool valley, and a reconnoitring scramble to the base of the bold bluff in which it terminated revealed a breach in the valley-wall extending for several miles; then the mountains rose again above a lateral valley, clearly the channel of the N. fork of the Whirlpool, which was evidently a stream of considerable size. Beyond the N. fork was one very strange-looking peak which—for immediate reference only—was irreverently christened Mt. Snub-nose. Some day it will present an interesting problem to ambitious rock climbers, but it is hopelessly unget-at-able at present, and our attention was mainly attracted by a lofty spur projecting into the angle between the two rivers, which seemed specially constructed for panoramic purposes. We reached the foot of it on August 19, having crossed the N. fork without much difficulty, and went up it on the 20th in $4\frac{1}{2}$ hrs. (exclusive of halts). After the usual struggle through windfall and brush, it is a walk, though a steep one, and there was some fairly good glissading on the way down. I strongly recommend the ascent to any future visitors to this region, for the peak more than fulfilled our expectations as a belvedere, and gave us a most comprehensive insight into the nature of our surroundings. No doubt the knowledge that a view has never been seen by anyone before is apt to make one unduly enthusiastic about it, but I was certainly surprised and delighted by the bold and varied forms of the peaks that faced us on the other side of the main valley. A broad lateral glen runs into the heart of this group; it is densely wooded, but Yates pronounced that taking horses up it would probably be a feasible operation and for nearly a day I dallied with the idea of making the experiment. Finally, however, I decided that it would be wiser to confine exploration on the farther side of the Whirlpool to the big glacier mentioned by Dr. Coleman, which was in full view a little higher up, and a fine snow mountain rising from the snow fields at its head,



*Mt. Brown and Mt. Hooker (?)
from the Whirlpool Valley.*



A. L. Mumm, photo.

Swan Electric Engraving Co. Ltd.

*Summit of Mt. Geikie,
from the Whirlpool River, (looking N.)*

which was dubbed—likewise for temporary purposes only—the Whirlpool Breithorn. It was clear that we should have plenty to occupy us in carrying out the project with which we started, for the most exciting of the day's discoveries was that an easy way did exist up to the N.W. ridge of Mt. Geikie, and furthermore that between us and Mt. Geikie there was a distinct gap in the chain which seemed almost certainly to provide just what we had been hoping to find—a route practicable for horses into the Yellowhead basin.

The next day was an idle one, during which plans finally crystallised: first and foremost the journey to the Athabasca pass must be completed; to have come so far and not to pay our respects to Mt. Brown was out of the question; secondly, either on the way up or on the way back, we would try to reach the 'Breithorn'; then we would go up Mt. Geikie, and unless some very improbable obstacle cropped up, take the whole outfit through the gap, locate, investigate, and perhaps attempt Mr. Wheeler's Mt. Geikie, climb Mt. Pelée, and return in triumph to Jasper by Donald Phillips's route referred to above. A very attractive programme and, I still think, not an extravagantly ambitious one.

Unfortunately, Howard's time was up, and he had to set off with Fred Stephens for Jasper next day. The rest of us pursued our way up the valley. On August 23, at the incredibly early hour—for the Rockies—of 3 A.M., a start was made for Dr. Coleman's glacier, but heavy rain compelled a return to camp. We resumed our journey later in the day, reached the Athabasca pass early on the 24th, and on the 25th spent the best part of four hours in perfect weather on the summit of Mt. Brown.

Dr. Coleman not unnaturally has not a good word to say for Mt. Brown, but I look back on our day on it as the pleasantest one in a trip which, disastrous as it was, had many pleasant days. The camp was left to take care of itself and the whole party came up. To Dick and George it was a first experience of mountaineering, and they thoroughly enjoyed it. Mt. Brown, according to an aneroid which Howard had kindly lent me, is 8950 ft. high; Dr. Coleman's companions made it 9050 ft. They described the climb as 'an easy ascent over good slopes, including a mile of snow field, but ending near the top with stiffer work, needing both hands and feet, while the very top was capped with a heavy snow cornice which they did not think it wise to attempt.' I should say that the ascent is certainly easier than the ordinary route up the Rimpfischhorn but not very much easier. Perhaps I ought to add that more

than twenty years have elapsed since my last visit to the Rimpfischhorn, one of the few mountains that I have ascended more than once, and I may be doing it less than justice, but what I have said will give a fair idea of the class to which the climb belongs. I have a special reason for going rather particularly into this matter, which will appear presently. As a view-point I rate Mt. Brown very highly indeed, and it was a great satisfaction to have ample leisure to drink in the details of the panorama which remains in my mind as one of the most extensive, varied and interesting that I have ever seen, scarcely inferior, if at all, to that which we had enjoyed from Mt. Bess two years before. Mt. Robson rose up royally, presenting an entirely novel aspect, and making me regret once more that I had failed to obtain what must be approximately the same one, at closer quarters, from Mt. Resplendent. Mt. Geikie also asserted itself very decisively, and is, I think, considerably higher than any other summit between the Athabasca and Yellowhead passes. I quite failed to identify its rival, Mr. Wheeler's Mt. Geikie, but was interested to note a well-marked depression a few miles down the valley and easily accessible from it, which would apparently lead to the head waters of the Fraser; this showed that my original plan of campaign has something to be said for it.

On the way down we caught sight of a tent some distance down on the other side of the pass, and nothing would satisfy Yates and Dick but stopping over for a day in order to pay its occupants a visit. They found only one, a Norwegian who had been gold-digging in Alaska and was now trying his luck on the Rockies; his partner was down in the Wood river valley a long way below. The Norwegian came up next morning before we started on the return journey and had lunch with us, and we were able to supply him with some salt and butter, of which they had run short. Then while the packs were being put on I had a conversation with him, which made such an impression on me that I wrote down in my diary a list of the subjects over which it ranged, all of them, be it understood, introduced by him, not by me. It is as follows: Homer, Plato and Aristotle, Marcus Aurelius, Constantine and the Council of Nice, the revival of Greek, Bacon, Spinoza, Darwin, Herbert Spencer, Bjornsen, Ibsen, Bernard Shaw and Hall Caine. He told me that he had been educated in Norway for the ministry, but not being able to face the prospect of that career had emigrated and found his way to Alaska, where I learned later that he had made at least two substantial 'piles,'

but had been induced to put his hard-earned gains into wild-cat mining schemes run by speculators in Dawson and had left the country as poor as when he entered it. He was a genuine Mystic (though he did not use the word himself), the only one I have ever encountered. He talked about it quite simply and unaffectedly, and I wish I could quote *verbatim* the language in which he conveyed to me his conviction that in the solitary places of the mountains he found himself able to enter into some sort of direct spiritual communion with the Unseen.

It would have been quite easy to reach the foot of Dr. Coleman's glacier in a single long day, but I purposely took things easily in order to be in good trim for an attack on the 'Breithorn,' and on August 27 we camped in a picturesque gorge about half-way down. There, not without difficulty, I found a bit of open space in the forest from which the illustration of Mt. Brown and the adjoining peak was taken. Howard had impressed on me that I ought to start a theory about Mt. Brown, but I had not the slightest idea of trying to revivify a question which seemed to be completely exhausted, and I don't know in what obscure corner of my subliminal consciousness the question suddenly originated: May not these two peaks perchance be Mt. Brown and Mt. Hooker? True, they have always appeared on opposite sides of the pass in the maps, but is it not possible that it was a mere assumption of the cartographers that the giant guardians of the pass would naturally be situated on opposite sides of it? It was the idle thought of a passing moment, but it stirred up again the doubts I had already felt as to the likelihood of Douglas having ascended Mt. Brown. That he was an adventurous traveller is obvious, otherwise he would not have been on the Athabasca pass in 1827, but if he really found his way to the top of Mt. Brown he was something more, an exceptionally adventurous mountaineer of the calibre of Forbes or John Ball. His remark about the view, to say nothing of his wild notions about altitude, suggests that his mental attitude towards mountains was widely removed from theirs, but he may have been a heaven-born climber for all that. There was little enough in all this to build a hypothesis upon, but when I got home, I had enough curiosity left about the matter to refer to his original account. There is nothing there in any way material which is not contained in the extracts quoted some years ago by Dr. Collie* and not a word occurs anywhere suggesting that Mt. Brown and Mt. Hooker are on

* *Climbs and Exploration in the Canadian Rockies*, pp. 151-3.

different sides of the pass. Douglas gives just one topographical hint : after describing his ascent of Mt. Brown and the view from it, he proceeds ' A little to the southward is one nearly the same height, rising into a sharper point ; this I named Mt. Hooker,' and he adds briefly that he was not able to climb it, without giving reasons. Now, so far as I can see, there is one hypothesis and only one on which the words just quoted become intelligible, namely, that Douglas went up the northern peak, and that his Mt. Hooker is Dr. Coleman's Mt. Brown. It would carry the matter a little further if I could say that the northern peak is the more easily accessible of the two ; unfortunately, it did not occur to me, while I was still on the spot, to inspect it from that point of view. The whole matter is of no great importance, and of purely historical, not to say, archaeological interest, but as no satisfactory attempt has yet been made to identify Mt. Hooker, I venture to suggest this solution of the problem as a probable one.

An easy march brought us back to the camp of August 22, and at 4.30 on the 29th Inderbinen, Yates and I started a second time for the big glacier. The weather was perfect and we looked forward to a day of great interest, whether or no we got up the Whirlpool Breithorn, as to which I did not feel very sanguine. The glacier was reached in exactly an hour ; we had reckoned on an hour and a half, and Inderbinen observed that it was the first occasion in his experience in the Rockies when we had arrived at a place sooner than we expected. On the other hand, both getting on to the glacier and getting across it cost a good deal more time and trouble than we had foreseen. The whole of the level tongue of it, instead of being flat and easy to travel over, was broken up into huge ridges and furrows of ice, running in all directions but mostly parallel with the course of the glacier (there were no ordinary transverse crevasses), and it was past 7.30 before the right bank was gained. After scrambling up steep slopes of shale and loose rocks for half an hour, we took to the ice again, and still ascending steeply and rapidly, arrived at the upper plateau of the glacier at 8.40. The sky line in front of us was decorated by a long line of jagged and monstrous seracs, glittering in the sunlight with dazzling brilliancy, and very soon we reached a point where the plateau was thickly strewn with avalanche débris—murderous-looking chunks of blue ice the size of one's head and upwards. We struck off to the left, where on August 20 we had marked what looked like an easy way through the ice-fall ; it was, however, anything but easy, and appeared to become still more compli-



Swiss Electric Engineering Co. Ltd.

The great Glacier to the East of Whirlpool River, (looking S.W.)

H. L. Mumme, photo.

cated farther on. Inderbinen, if not as nimble on rocks as he was in the 'eighties, deals with glaciers as masterfully as ever, and would, I think, have got us through, but signs were plentiful that we were still well within range of the formidable artillery of the seracs, and likely to be so for some time. It is seldom that a climber in new country goes out of his way to court difficulties, his predominant desire being to arrive, by the easiest route that presents itself; but with respect to dangers the tendency is the other way, and the temptation to take chances may easily be greater than in the Alps. We were sorely tempted now, but there was no possibility of an alternative return route, and with the memory in my mind of two highly sensational warnings in previous years I decided, after half an hour of slow progress, to turn back. We hurried down till clear of the avalanche zone and then took things easily, photographing and admiring at leisure one of the wildest and most fantastic ice-scapes that I have ever seen. There was no sign of any other route to the upper snow-fields. Ten days later we saw that these were wider and more extensive than we had supposed and that there would not have been nearly time enough, in any event, for an attempt on the 'Breithorn.'

Though the failure to reach the crest of the range was a disappointment, our repulse did not weigh very heavily on my spirits as we proceeded on our way down the valley. After all, the attempt was only an excrescence on our original plan, of which by far the most interesting part still lay before us. By 1 o'clock on Sunday, August 31, we had safely crossed the North Whirlpool, and an hour later were halted at what I hoped was our last camp in the Whirlpool valley. Everything was planned out: we were to make a light camp at timberline and thence climb Mt. Geikie, the top of which I regarded as already in my pocket; during the ascent we should be able to see the whole of the proposed route through the gap, and if all was well, Inderbinen and I would spend the next day lazily in the light camp while Yates went down and brought up the rest of the outfit. And then the tragedy began. Rain fell one day after another, till on Friday we grew desperate and set out on the strength of a few gleams of sunshine, only to be driven back, two hours later, by a snow-storm. Matters began to mend on Saturday evening, and finally, on Sunday, just a week after our arrival, we started at mid-day, reaching the camping-place, where snow was still lying thickly, soon after 4. On Monday, September 8, a walk of two hours over nearly level ground, which

was literally crawling with ptarmigan, brought us to the foot of Mt. Geikie. The mountain on this side formed a vast rocky amphitheatre with two horns or arms, the one on our right huge and precipitous, running right up to the summit, the other a gently sloping ridge, which we had noted on August 20 as providing an easy way to the main N.W. arête. Discarding this route, we climbed straight up the face, and in 1½ hrs. struck the N.W. ridge at its lowest point. Though there had been plenty of indications of a strong wind, its violence staggered us, and we dallied long over breakfast to give it a chance of abating; but the gale only seemed to gather fresh strength as time went on. Soon after we had started again one of my hands lost all sensation; some little time was spent in restoring the circulation, and another hour passed before we completed the passage of the easy nearly level ridge to the foot of the final peak. We had expected steep but good snow, but found rocks covered with *verglas*. It was not a day for difficult climbing; away to the right a gentler ridge separated from us by a broad ice-slope, steep but not impracticable, seemed to promise an easier way. Worth trying?—Yes.—‘But it will take a long time,’ said Inderbinen. Owing partly to the hardness of the ice, partly to the difficulty of wielding an ice-axe in a hurricane, it took fully two hours. Long before they were over I wished I had never been born, and my interest in the ascent began to be obscured by an ugly vision of a return to camp drenched, after dark, and with a snow-storm raging. The rocks on the far side were certainly easier, but before they could be reached there was some more step-cutting to be done, up hill and along the crest of the ridge. The summit was three to four hundred feet above us, and further progress was not impossible, but in the circumstances it was risky and we had all had enough; so once more a retreat was sounded. It was a fitting climax to an exasperating week. Later, when I emerged from the condition of stupefied idiocy to which I am invariably reduced by a violent wind, it occurred to me that we might easily have gone on another 60 or 80 yards before taking to the ice and so reached the second ridge above the awkward bit. Had we done so, I think that possibly we might have completed the ascent, but I do not know and do not greatly care. A quiet hour on the top would have been priceless, but there would have been neither pleasure nor profit in poking our noses above it for a couple of seconds and then hurrying down again. The only thing that does annoy me is the reflection that the next party will get up comfortably in six hours or less from

the camp, and wonder what on earth the difficulty was. But they won't be there when a hurricane is blowing.

We went down by the western ridge of the amphitheatre. It was bad travelling—over large boulders half smothered in fresh snow—and the route up the face is much to be preferred, at any rate in ascending, but camp was regained in good time, before the impending storm had really set in, and we supped deliciously off a fool-hen, which Yates had killed on Sunday in the orthodox manner by throwing stones at it till he made a hit. Afterwards Inderbilen and I slept snugly in the small Mummery tent; not so Yates and George (who had come up with us as porter and spent the day in a vain quest for caribou); they had only a lean-to in front of the fire, and passed a miserable night in the rain, snow and driving wind.

We returned to the main camp next morning. There was little temptation now to try the new way back to Jasper, with the prospect of having to travel in all weathers and no time for exploration or climbing. On Wednesday a long day's march brought us to the junction of the Whirlpool and the Athabasca, where we found our Norwegian friend, returning as unsuccessful as ourselves. Early on Friday, September 12, we were once more in Jasper. I could not get out of my head the words in which Edward Whymper once described an expedition to Dauphiné, 'They came, they saw, but they did not conquer.' However we did manage to see a good deal, and what we saw was largely new, and of special interest at the present moment owing to the fact that these regions have just been rendered easily accessible by railway. And I hope it will not be long before some other member of the Club is tempted to make, with happier fortune, a Trip up the Whirlpool river.

ON THE OUTSKIRTS—MONT AIGUILLE AND BEYOND.

By W. T. KIRKPATRICK.

(Read before the Alpine Club, June 9, 1914.)

IN making our plans for the season, Hope and I usually try to include some bit of country quite new to us, and have thus at least visited every snow-clad group from Dauphiné to the Gross Glockner. And yet, like so many members of the Alpine Club, we had often admired from a distance,

but never reached, the Viso. This neglect of a mountain, which surpasses in height all those in Tyrol save the Ortler and Königsspitze, and looks down on the well-known Arolla peaks, is probably due to its inaccessibility. We had also been deterred by warnings of the frightful heat we should experience so far south, but fortunately the summer of 1913 was exceptional in that respect, and there was only one day, in the town of Gap, that we really found it too hot to be pleasant.

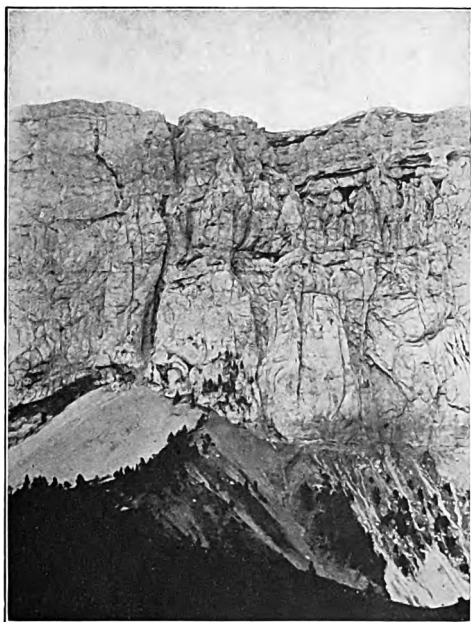
The long journey gave plenty of time for reading Ball's guide, and the description of Mont Aiguille suggested the idea of taking it on our way south from Grenoble, and so we alighted at the roadside station of Clèlles-Mens. The change from the Hôtel Royal at Lyons to the rustic simplicity of the Hôtel du Mont Aiguille was rather sudden, but still there was not very much to complain of. Though the dining-room was the common drinking-place for the railway hands and navvies, and the floor impossible, the bedrooms were fairly clean, the people civil, and the food good, while the view of Mont Aiguille satisfied us that we had not been wrong in breaking our journey here. Only 6880 feet in height it is, I think, the most extraordinary mountain I have ever seen. A good photograph of it by Sir Alexander Kennedy was shown at the Alpine Club Photographic Exhibition in December 1912, and has been reproduced in the JOURNAL.* The base of the mountain consists of grassy slopes and scree, the lower parts well wooded, and above them rises a table mountain with walls of rock, almost perpendicular on every side, and looking quite inaccessible. In fact its name, prior to the first ascent, was *Le Mont Inaccessible*, and it can boast of one of the earliest recorded ascents in the Alps.

In 1462 Charles VIII. of France commanded his Chamberlain, Antoine de Ville, Lord of Domjulian and Beaupré, to try to climb this mountain, which he succeeded in doing 'by subtle means and engines,' accompanied by eight or ten persons, including a carpenter, a ladder-man, and two priests, who said mass on the top, and baptised the mountain, giving it the name of 'Eguille Fort,' in the name of the Father, the Son, and the Holy Ghost.

The Chamberlain, or some of his retinue, must have been good rock climbers, but we may fairly guess that in addition to the use of ladders, the carpenter was equipped with a hammer

* *A.J.* xxvii. 77.

MONT AIGUILLE.



Cheminée d'ascension.

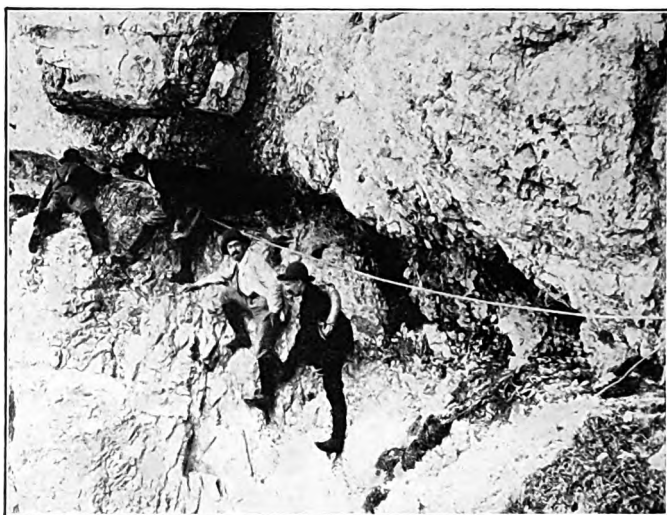


Henri Ferrand, photo.

Swan Electric Engraving Co., Ltd.

Vu du Grand Veymont.

MONT AIGUILLE.



Passage des Meules.



Henri Ferrand, photo.

Swan Electric Engraving Co., Ltd.

Vu du Fau.

and pitons. When Domjulian reached the top, he wrote and despatched a letter to the President of the Parliament of Grenoble, asking him to send a few people to see the party on the mountain, and stating that it was 'the most horrible and frightful passage that I or any of my company have ever seen.' The Parliament sent their Usher, the Noble Yve Lévy, to see whether the story was true, and he reported that he saw Domjulian and several others on the mountain, but did not attempt to climb it 'owing to the danger of perishing there, and by reason of the impossibility of getting there, for fear he should seem to tempt the Lord, since at the mere sight of this mountain everyone was terrified.' *

Among the documents which certify this ascent, and are preserved in the archives at Grenoble, is an account written by François de Bosco, Almoner to Domjulian and one of those who accompanied him on the expedition, in which he says that 'the mountain is covered with a beautiful meadow,' and that 'there is also a very beautiful herd of chamois, which will never be able to get away,' as also many birds of different kinds. 'One also finds there,' he wrote, 'a great quantity of flowers of various colours and various fragrant scents, and more particularly, lilies.' On this Mr. Gribble observes that 'the flora and fauna of the mountain-top, at any rate, seem to have been either hastily observed, or carelessly reported, by the ecclesiastic, François de Bosco'; and though we must agree that the chamois could never have got up any more than they could have got down, we certainly found on the top a great many flowers of various kinds, including a number of lilies.†

There was no further ascent of the mountain till 1834, when it was climbed by Jean Liotard, a peasant, who found the top covered with grass and flowers, but no trace of animals, living or dead. The first ascent by a tourist was in 1877, and in 1881 it was climbed by Mr. Coolidge, who declared, in a note in the *ALPINE JOURNAL* written in 1888, that it was 'one of the most curious and interesting ascents' he had ever made.‡

On July 20, 1913, our landlord drove us in a very rickety waggonette to the village of La Richardière, which is apparently the easiest way of getting at the mountain, and, in his farewell

* *The Early Mountaineers*, Gribble, p. 31.

† We found a quantity of the white Alpine lily, and of Martagon lily, in a depauperated state.

‡ *A.J.* xiv. 217.

VOL. XXVIII.—NO. CCVI.

injunctions, warned us to be careful, as a man had been killed that year, presumably on Mont Aiguille; but we learnt afterwards that he had been killed in a driving accident, so that the warning seemed to be one for our host to take to heart rather than for us.

We went up through wood, beech, box and fir, succeeded by sticky mud and grass, to the foot of the rocks, at their S.-W. end. Here we looked at the S.-E. face which is quite impracticable, and then went along the N.-W. side. About opposite its centre the débris slopes are joined by a grassy ridge to the main table-land lying to the W., and here the cliffs are less steep. Passing a little beyond this ridge, we turned up the rocks, having found an empty rucksack at their foot, which we thought might have belonged to the dead man.

The ascent, like most of the Dolomite climbs, began steeply from the scree, and led upward to the left for about a hundred feet, the rock consisting of rounded limestone. We were glad to find two pitons in place, but had so far underrated the climb as to bring only 40 feet of rope, which was about 10 feet too short for every pitch where it was needed. We then bore to our right and upwards for another 50 feet, after which a bit on the level brought us to easier ground, and we found ourselves at the lower end of the main feature of the climb. The rocks immediately above the grassy ridge, which I have mentioned, project in the form of a partially detached tower, and we were on the true right wall of the broad and almost vertical gully leading up to the gap between this tower and the mountain. The route lies up a ledge which rises for some 300 feet at an angle of about 30 degrees, its outer edge broken and sloping. Except for 10 feet at the top there is nothing more than easy scrambling, but the drop below appeared vertical and there are no good hitches for the rope. There is, however, a wire cable, and to this we held tight all the way. Without it, the place would have a reputation at Cortina as an exposed, but not difficult, traverse, and would have been decidedly trying for a first day's climb.

We were now at the gap above which the tower rose sheer. On the other side a broad gully led upward, and we were glad to find it considerably easier than we expected. We followed it up, and soon reached another cable which led us up the narrowing and steepening gully to an overhang, and in a few minutes we were in a meadow, so deep and luxuriant that we almost felt guilty as we waded through it. The plateau which forms the top of the mountain is about 500 by 100 yards,

and slopes gently from N.-E. to S.-W. and more steeply from N.-W. to S.-E., and was thick with flowers, of which we picked about twenty-five different kinds.* To the W. stretched a great table-land, and to the E. we got a fine view of the Dauphiné mountains. It took us about $1\frac{3}{4}$ hours to climb the rocks, and $1\frac{1}{2}$ hours to descend them, but it was our first expedition of the season. On the way back, we walked along at the foot of the S.E. wall, which in steepness is only equalled by the great wall of the Rothwand.†

After this diversion our object was to get to Monte Viso as quickly as possible. From Clelles-Mens we went by train to Gap, where we chose what seemed the least grubby hotel at which to lunch and leave our luggage, and then went on by rail to Mont Dauphin-Guillestre, about a mile and a half from Guillestre, where there is an interesting church porch. The narrow street was almost completely filled by the public motor-car, which took us to Abriès, an interesting drive. Looking back above Guillestre the road commands fine views of Pelvoux, and further on passes through a number of ravines, the best being that of Chapelue. At Abriès we engaged a carriage to take us as far as it could, and were turned out at La Chalp to begin the first grind of the season over the Col de la Traversette, which we found very irksome, especially Hope, who was suffering from a slight attack of 'flu.' Unfortunately we did not go through the very curious tunnel which pierces the mountain about 100 feet or more below the col, as it is said to be sometimes blocked at the other side, and we were already late, but when we got there we found it would have paid us and saved the last pull up.

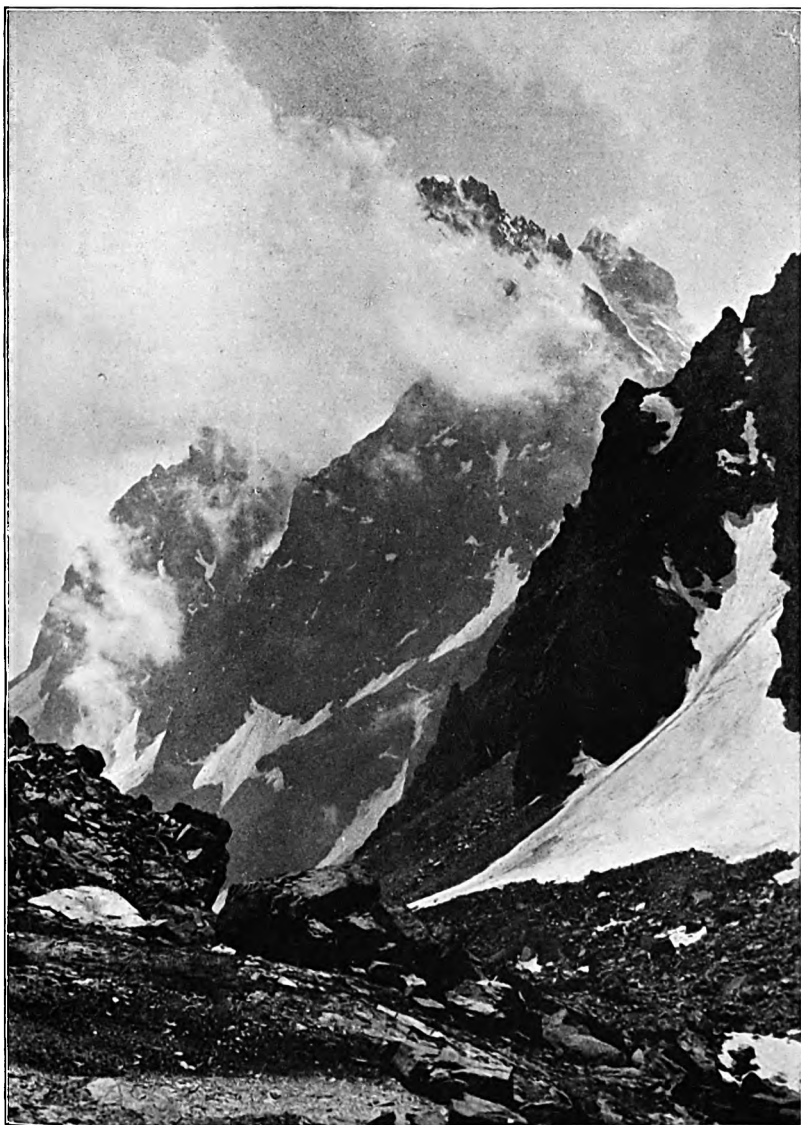
When we reached the primitive Alpine inn on the 'Piano

* Including *Tulipa Australis*, *Phyteuma orbiculare*, *Orchis globosa*, *Nigritella angustifolia*, *Nigritella suaveolens* Vill., *Phaca frigida*, *Pedicularis verticillata*, *Alsine verna* Bartling, *Senecio doricum*, *Aster alpinus*, *Carduus personatus*, *Lotus tenuis*, *Lilium Martagon*.

† On July 7, 1895, Messrs. Thorant and Doderò, having made the ascent by the ordinary route, descended by the N. face. They used a number of pitons, and left several spare ropes, taking 6 hours over the rock descent, which is about 1000 feet. On August 25, 1895, Messrs. Thorant and Chaumet ascended by the same route, making use of the ropes that had been employed in the previous descent. And on June 15, 1913, Messrs. Capdepon and Constant ascended the N. face in 6 hours.

del Re' at about 9 P.M., we thought we had not struck the right place, as there appeared to be no doors or windows in the house, and builders' débris of every kind lay scattered about. After making a complete circuit of this forbidding refuge, we shouted at the most habitable looking part. This caused a head to appear from an upper window, and we were soon ushered through the doorless entrance into the kitchen, where we supped frugally, a canvas sheet forming a very ineffectual protection against the wind. Hope, as the invalid, was given the only available single bedroom—truly a bedroom, for it contained a bed and nothing else, except some articles of feminine attire which hung on the walls, and it was certainly airy, as the window space was only filled with sheets of corrugated iron supported by wooden props. Consequently the hurricane which blew throughout the night produced a clanging like stage thunder with every gust of wind. In fact the iron was shifted again and again, and Hope had to get up three times in the first hour to prevent its being blown right in. I, in my turn, was shot into the dining-room, which contained four beds—three of them already occupied—and a miscellaneous collection of glass, crockery, household goods and merchandise. The three other occupants left early, and two tourists were shown in to drink liqueur before I was up, quite regardless of my presence, which, moreover, did not deter the ladies of the house from coming in and making the other beds. Washing arrangements there were none. I should add that the house was being rebuilt, and future visitors will doubtless find it a comfortable resting-place. It is curious that the strong winds which we experienced here, as well as at Abriès and Guillestre, and which would have meant bad weather in the Swiss Alps, in this district seemed to have no such result.

After breakfast we visited the source of the Po, which is quite close to the inn, and then walked over Col Viso to the Quintino Sella hut, a large four-storied building with room for over thirty people, and open as an inn in summer. A telephone was being installed, and Hope was called in to explain the connections which were marked in English. Unfortunately we both fell victims to the seductive charms of *Asti spumante*, and next morning felt unequal to trying the Viso by any but the easiest route. The weather also being indifferent, we started late and toiled over the fearful loose stones that lead to the Passo delle Sagnette. Descending the other side we made a *câche* not far from the old hut, and then attacked the S. face of the Viso, both of us going very badly,



R. L. G. Irving, photo.

Swan Electric Engraving Co., Ltd.

MONTE VISO,
from the North.

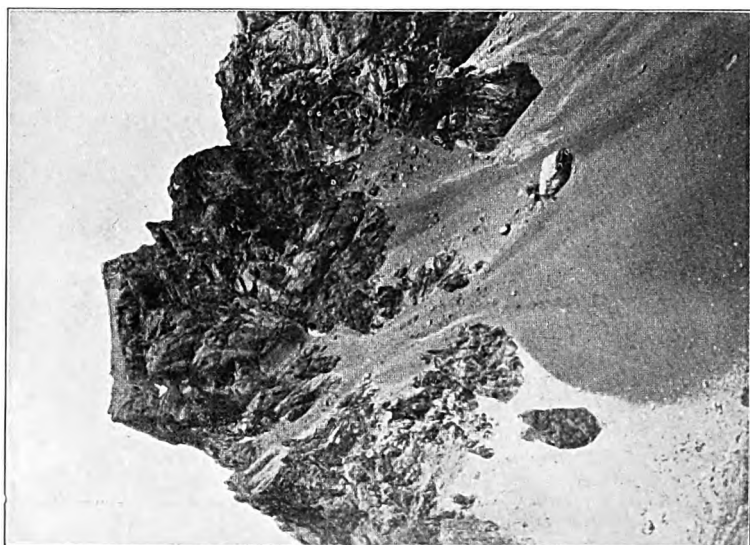
and feeling much the worse for our indulgence in the sparkling wine of the country ; in fact I had to draw on a tiny flask of brandy, which I had carried for years and never touched. Thus we crawled to the summit which we had so long desired, but the famous view was wrapped in cloud. We had done the Viso and that was all. Leaving the foot of the S. face at 6.30 P.M., we found no trace of anything like a path leading to the Forciolline glen, and after passing the lakes were overtaken by fog and darkness while still on the rocky barrier at the head of the glen. We tried to invert Ball's directions for the ascent, and so kept on the right bank of the stream, but after getting down some way we gave up the idea of his route, and took our own. Working back to our left to the stream we got into its bed below a fall, and found it rather a difficult bit of work with no light but the lantern. We then kept along stony slopes, traversing above the stream, and rolled down some stones, which indicated a steep drop. So we continued at the same level. The ground was steep *débris*, hard in places, with loose stones on top, and was not bad going even in the dark for a man with two hands for his axe, but for the lantern bearer, with only one free hand and a cliff below, far from easy. Finally we reached the top of a rock wall. We tried it in two places, descending 200 feet or so, more by feeling than seeing, and each time found a sheer drop below. So we went back a bit, and I let Hope down a rock and grass chimney with the lantern and 80 feet of rope. At the bottom he unroped and told me he was going on for a bit, after which I could hear nothing and was left waiting in darkness and uncertainty. Soon he came up again and reported further advance as just possible, but anyhow a good sleeping place, so we both descended and made ourselves as comfortable as we could under the circumstances. In the morning we saw that while the further advance would have been possible for 10 feet, it would have been no use, and we should probably have been unable to get up again. We climbed up our chimney with some difficulty and noted, not for the first time, what nasty places one can do in the dark. We then got down into the bed of the stream, crossed it, and having made as good a breakfast as the condition of our rucksacks allowed, descended the Vallante Glen to Castelponte, whence an hour's walk along a hot and dusty road took us to Casteldelphino.

Baedeker talks of the *Hôtel de France*, but there was nothing that could be justly dignified by the name of an hotel, and we walked two or three times up and down the village

street-eyed by gendarmes—trying to make up our minds which was the least unprepossessing of the half-dozen *osterie*. Finally we pitched on the Leone d'Oro, at the end of the village next the church. It was primitive but did us fairly well. Hope's bedroom was large, and contained one bed, about a dozen chairs, some old clothes, bacon, boots, dried herbs, wine bottles, and a quantity of household lumber, in the midst of which he slept peacefully. The day was Friday, and two peasant women at the table next ours dined off salad, followed by cheese, and I marvelled at the way they emptied the oil cruet on to the salad. In the evening we saw the bright light of many fireflies dancing about below the ceiling.

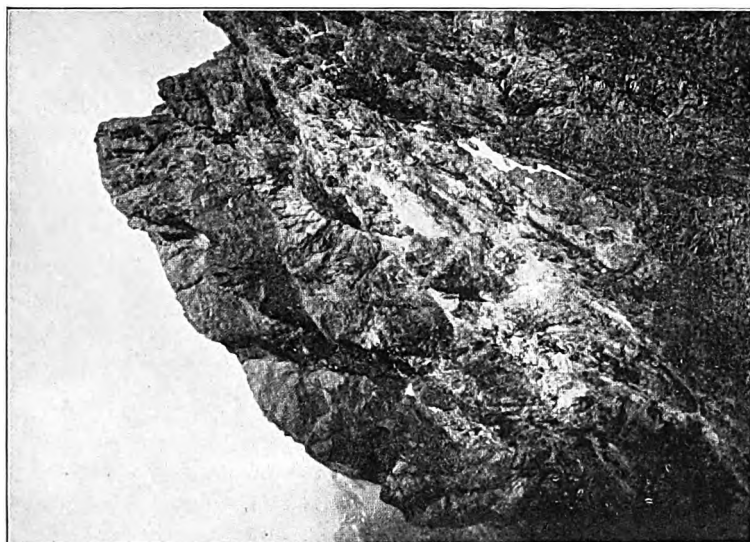
Next morning was brilliantly fine, and we had a pleasant walk up the Bellino Glen. It was St. Anne's Day, and above the hamlet named after that saint we met the whole population of the country-side coming down, and finally a procession of men and women in habits, carrying crosses and chanting prayers. Ascending to the head of the valley we went up to the Colletta di Chiapera, traversed on the near side of it, went up to the ridge again, and crossed the Col de Roure into the Val de Mary, where we talked with a herdsman who was in sole charge of 700 sheep. Descending to Maljasset or Maurin, a mere hamlet, we experienced the truth of Ball's assertion that 'the accommodation is not good,' a very euphemistic statement in my opinion.* We awoke next morning to find that the place had been invaded by a detachment of soldiers, and even if we had wished to spend a peaceful Sunday there, we could not have done so, as after breakfast we were accosted by a portly *gendarme*, and thought that at last the moment had arrived for producing the passports with which we had been careful to provide ourselves. But it was only to ask us if we wished to stay there, as Hope's bed, apparently the best in the village (he only *saw* two fleas), had been bespoken for the Colonel. So we walked down the dull high road to the point where the valley is almost closed by a rocky barrier, and the stream passes through a narrow gorge, 360 feet below the bridge, which we crossed on our way to Fouillouze, a nicely situated village, 6075 feet above the sea. We asked for quarters at the *Maison Meyran*, the house of the local guide, where a large family party met us at the door and assailed us with a torrent of questions:

* The Col de Lautaret would have been a better route from the Bellino Glen to the Ubaye Valley than that which we followed.



V. de Cessole, photo.

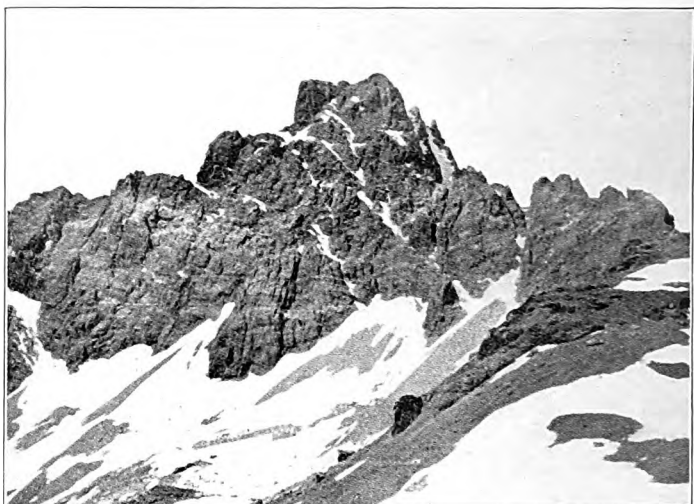
From the Tête du Pissai.



Swan Electric Engraving Co., Ltd.

BREC DE CHAMBEYRON,

From the Tête des Oupech.



V. de Cessole, photo.

Swan Electric Engraving Co., Ltd.

BREC DE CHAMBEYRON,
from the Tête de la Fréma.



P. Helbronner, photo.

Swan Electric Engraving Co., Ltd.

SIRAC,
N.E. face, from les Bans.

D'où venez-vous ?

Angleterre.

Qu'allez-vous faire ?

Le Chambeyron.

Qui vous conduira ?

Nous-mêmes.

Avez-vous déjà été là ?

Non.

N'avez-vous pas peur ?

Non.

Ah ! vous venez d'un peuple téméraire.

The *Maison Meyran* being full to overflowing we fortunately found good quarters at Mlle. Maurel's, and took an *al fresco* lunch in the meadows above the stream. Soon after we had finished, a bevy of girls came, stood and looked at us, laughed, and then plumped down on the grass a few yards away. They explained that they seldom saw any strangers, and that there was nothing to do on Sunday, so they apparently came to flirt with us, and proceeded to ask us many questions. When their curiosity had been partially satisfied, they departed up the hill, and returned to present us with a tricoloured *bouquet*, representing the colours of France, which, they said, they would not have given us if we had been Germans.

Starting at 8.30 next morning, we turned up the slopes above the village, and followed an old watercourse to the lakes lying between the Brec and the Aiguille de Chambeyron. Having crossed a col on the N.-E. arête of the Brec, we traversed on to its E. face, and went up a gully of loose and rotten rock again to the N.-E. arête, which we followed to the foot of the final rock wall. Thence we climbed straight up a gully in the rock face, which was blocked near the top by a stone, over which we had to wriggle, before emerging on to a scree slope just below the top. On the way up we had some nice views of Pelvoux, Monte Viso, and the Maritime Alps, but on the top were in cloud. On the descent when the time came to leave the N.-E. arête we looked down a snow couloir on the N.-W. face, and saw our breakfast place below us. It was too tempting and we descended about 1000 feet in fifteen minutes. The snow was good and the sun hidden, but the quantity of stones in the snow showed that the route was only suitable for a descent, and that in cold weather.*

Having said farewell to our friends at Fouillouze, we walked

* This couloir appears to be a new route.

down to St. Paul, where we again found soldiers in possession. We had intended to cross the Col de Var by the ordinary motor service next morning, and were told that the car would be there at 8.30, but at 8 o'clock we were suddenly informed that it was waiting, and were hurried out by the hotel porter to a large car occupied only by the driver and his chief. It turned out to be a pirate service which had started for the first time that morning at considerably reduced prices, and had left Barcelonnette before the P.L.M. car. The latter was however a more powerful one, and as we looked down the winding road below us, we saw it slowly but surely overhauling us. The Pirates made every effort to keep their lead, looking back anxiously at every turn of the road, while our big empty char-à-banc rattled and jolted over newly laid stones and ruts regardless of springs and passengers, and the way we went round some of the corners, on a narrow road with a precipice on one side, was most alarming. At last we were overtaken, and had to let the other car pass, but when it stopped to do business at a village we took the lead again. Soon after passing the col, to the great disgust of our conductors we saw a column of soldiers, nearly half a mile in length, winding down the road below us. We passed them however at a dangerous pace, more than one man being very nearly hit by the handle of a motor bicycle which was strapped on to our runner-board. A little further on the bicycle broke away from its lashings, and was dashed on to the road. By extraordinary luck it was not smashed, and the Pirate chief proceeded to mount it, while we pursued our wild career.

Before we began the winding descent to Guillestre, Hope was seized with a desire for walking exercise, which the driver attributed to blue funk, and he and I were left alone. The descent was trying, but we drew up at the hotel door in Guillestre, palpitating but victorious. The driver took a hasty drink, and resumed his headlong course, absolutely alone.

From Guillestre we returned by train to Gap after a circular tour of eight days. The accommodation, at which we had rather turned up our noses before, now appeared palatial, and we thoroughly enjoyed the luxury of bathrooms, a square feed and clean sheets.

Next morning we took a carriage and pair over the Col de Manse to Les Borels en Champoléon, which lies a short distance from the southern wall of the Dauphiné mountains. At the col we stopped at the *Refuge Napoléon*, where the guardian, a tall, raw-boned, good-humoured looking man, was astonished

to see anyone hailing from England, and would apparently have liked to talk to us much longer than we could afford to stay. We had intended to go beyond Champoléon, but just as we arrived there a great thunderstorm began and lasted for some hours, so that we had perforce to stop at what Ball's Guide justly describes as the 'humble' inn. They said they could give us one bed in a room with others, but we insisted that we must at least have two beds and a room to ourselves. We could not face the atmosphere of the living room, and, notwithstanding many invitations to enter it, spent the afternoon standing or sitting in the doorway of the inn. During an interval in the storm an adder suddenly dropped from the eave gutter on to the road. The inn people said it must have come from the hay, which was stored in a loft at the top of the house, and as we expected our next resting-place to be a hay barn, we were not altogether pleased at the possibilities suggested by the incident.

Our host was an old guide; but, I should say, a purely local one, as he told us that the Sirac was harder than the Meije. He also warned us that a tourist had been killed on the Sirac not very long ago. Supposing we were killed, how should they know? Would we send a postcard to say if we succeeded and were still alive?

The following afternoon we walked up to Les Auberts, a miserable hamlet consisting of four dwelling-houses, with the usual barns and outbuildings. Having discovered the house to which we had been recommended, we were received by an old couple who said that :—Yes, we could sleep in the hay; which was all that we aspired to, though we thought we should like to be guaranteed against snakes. The living room was very rough and dirty, and we entered it with some hesitation, but it was cold outside, and the old lady made an excellent omelette, and entertained us with much talk. They were the only family that stayed at Les Auberts during the winter, being too poor to go elsewhere, and they went down to mass at Les Borels every Sunday on snow-shoes. We must not think of going to the top of Sirac. A poor gentleman had been killed there two years before, and he too had slept in the hay. The way in which we were constantly reminded of fatal accidents, during our tour, was enough to shake the stoutest heart, but after the motor race over the Col de Var our nerves were steeled against any shock. Wishing to know what height we had to climb on the morrow, I asked our hostess how high we were above the sea, whereupon she entered into

a long explanation of how we must go to Gap, and thence by train to Marseilles before we could reach the level of the sea, with which information I had to rest content. When we retired to the hay we were escorted by the whole family, and as the barn was above the dwelling-house, we arranged to knock the floor with our axes when we wished to have the fire lit for our early breakfast, and, thinking of snakes, we went to sleep.

Next morning we started at 4 o'clock, up the desolate Issora Valley, from which there is said to be a path leading N.-E. We found none and had to climb up a horrible steep slope composed of greasy grass and rock, carrying luggage and extra luxuries for Le Clot en Valgaudemar, including butter and honey, neither of which was obtainable there four years before, but this time, having brought them, we found plenty of both. Thus we reached a fertile plain, above which rose a long level ridge of black shale, curiously fluted, and presenting a most gloomy aspect. We had thought of trying to find a sleeping place here instead of stopping at Les Auberts, but the only accommodation we could see was a dilapidated hut containing the remains of a departed sheep. When its comrades perceived us from afar, they tore down in hundreds from the surrounding slopes, and beset us in hopes of salt while we stopped to feed.

It was hard to decide which point on the long shale ridge was the Col Vallonpierre, so we kept in the direction in which we expected the Sirac to be, for it was still out of sight. After climbing a very steep slope of wet slippery shale, we struck the ridge above, and S.-E. of, the col, and made a descending traverse to our right to the snowy hollow S. of Sirac. We could see a snow gully coming down from the glacier, but it ended in a waterfall, which was not encouraging. However, the way up the wall on the E. of the stream was not so bad as it looked, and we reached the foot of the gully, ascended by loose stones on its left bank to the glacier, and traversed upwards by fairly steep slopes to the foot of the couloir in its N.-E. corner. The Climber's Guide tells one to climb the couloir or the steep rocks on its left bank. We used the latter to get over the bergschrund, and then went back to the couloir. The upper part was very steep, and we got out on the right bank where some rocks led up to the final chimney. These rocks were rotten and covered with wet fresh snow, while the holds were bad, with no possible hitches, and rarely even a good foothold for the leader. The nearer we got to the final chimney leading to the S.-W. arête the worse it looked, and as it was raining hard and we were in

thick mist, we turned back at its foot. It may be a route, but in its then condition it was an excessively nasty bit, and we were glad to get down the rocks into the couloir again, though it was steep enough to make us face the mountain most of the way down it, with one axe always firmly buried. So we descended to Le Clot en Valgaudemar, where there is a substantial hut belonging to the French Alpine Club, consisting of two large rooms with a number of excellent beds, and a living room, with kitchen downstairs. The drawback is that the guardian and his wife, who live in the neighbouring hamlet, sit through each meal, watching and appraising every mouthful that one takes, and appraising fairly high. But they do you very well all the same.

We decided to try the Sirac once more, as we might never be so near it again, though we did not much like the idea of the final chimney. Taking an off day, we walked down to La Chapelle for lunch, and on the way back had a talk with the natives at Rif du Sap, a village below Le Clot, who told us that we could not climb Sirac without guides; it was absolutely out of the question; we should fall and be killed. Thus encouraged we started at 3 o'clock the following morning, and walked up the valley to the plain near the Vallonpierre lake, gaining the glacier W. of Sirac by the rocks on the left bank of the tongue of ice which descends from it. This route looked shorter than our previous one, and would have been so, but that we had to cut a good many steps on the glacier, and owing to this possibility the other route is better. Having joined our old tracks we left the couloir about half-way up, and took to the steep rocks on its left bank, which soon became less steep, and led to a sort of terrace under the wall of the S.-W. arête, level with the col, and high above the couloir. In traversing to the col we had to crawl up a sloping ledge, which it was difficult to negotiate on the descent crawling down backwards, and if we had kept more to our right in ascending the rocks we should probably have found an easier way. We crossed the col and climbed easily up the S.E. face of the mountain to the top, whence we got a fine view of Pic d'Olan, the Meije, Ecrins. Les Bans, Chaillol, &c. Four years before, when crossing the Sommet des Rouies, we had been much impressed with the appearance of Sirac. The N. face, which is seen from thence, is something like the Dent du Midi, but is much finer. It stands up a great wall, seamed by steep couloirs, and presenting six summits, all very much on a level with each other. This face is quite impossible, and

the whole mass fully deserves the description given to it in Ball's Guide, as being 'a very grand mountain.'

We left Le Clot in bad weather, intending to cross either the Col Chalance or the Col de la Muande, and before long were in heavy rain and thick mist. The Climber's Guide describes the S. side of Col Chalance as easy, and does not mention any difficulties on the N., whereas it speaks of a 'steep ice or snow couloir' on the S. side of the Col de la Muande. So we decided to take the col that was at least easy on one side, but found that it was not easy on the N., though we could not see any distance ahead of us, and probably did not strike the ridge at the best place. As it was, we had to traverse along to the E. before descending at a point which was not exactly either the Col Chalance or Col de la Muande. The descent to the Muande Glacier required care, as the snow was steep and soft, and we had to traverse to reach a bridge over the bergschrund. On the glacier we came in for a snowstorm, followed by a bad thunderstorm, and were in some danger of falling stones. So we were glad to get on *terra firma*. We had once before walked along the abominable path through the La Lavey Glen in the dusk and darkness, and how we, or anyone else who has done so, should have chosen to repeat the walk is a mystery. After crossing the Venéon we followed the track leading upwards to the main valley path, but it soon seemed to vanish in débris that became looser as we ascended. This last and unexpected discomfort was explained when we suddenly found ourselves on the new road which was being constructed from St. Christophe to La Berarde. It runs almost on the level into St. Christophe, avoiding the ups and downs of the old path, and we walked along it, in torrents of rain, to the Hôtel Turo, where we were no longer 'on the outskirts.'

[For the discussion of this article see pp. 353-4.]

WEEK-END SCRAMBLES IN THE KANGRA HIMALAYAS.

By H. D. MINCHINTON.

IN chapter iv. of *Twenty Years' Climbing in the Himalayas*, Colonel Bruce says that if one were to confine oneself to peaks of 20,000 feet one could enjoy oneself immensely. I wish to prove, in this paper, that even at a much lower elevation very great enjoyment can be obtained. Referring again



H. D. Munckton, photo.

Chamba Peak, from Yuasi.

Swan Electric Engineering Co. Ltd.

to the above-mentioned book, Colonel Bruce says 'the Kangra Valley of the Southern Punjab is in itself of great interest . . . but the feature which gives special interest to this district is the great wall of the Dhaoli Dhar range, which bounds the valley on the N., and may best be called the outer Himalaya. It lies directly E. of the broken Kangra tableland to a maximum height of 17,000 feet odd, and, having, roughly speaking, an average elevation of 15,000 feet, runs from the Kulu border to the Kashmir border. I wonder whether anywhere else in the world there is such an abrupt wall without foot-hills . . . It is an extraordinarily precipitous wall, and, of the many passes across it, there are very few that are not regular staircases for the last 3000 feet or so. The effect is picturesquely heightened by the dark, heavy forests of ilex and rhododendron on the middle and lower slope, which, when one is among them, give a curious dark and striking appearance to the scenery in contrast to the great grey precipices above them.' On one of the spurs of this range, at a height of 6000 feet, lies Dharmsala Cantonment, where my regiment is stationed, and from here it is possible to reach permanent snow in four hours in the hottest weather. As has already been said, the range drops very steeply on the S. or Kangra side—in places almost vertically, like the face of the Wetterhorn on a huge scale—while here and there spurs give access to the passes. These passes are used by the Guddis—hill shepherds—in the spring and autumn for taking their flocks to, and returning from, the Chamba pastures.

Behind Dharmsala itself lies the Andrea Pass, locally called 'the pass,' a much frequented one. To see several hundred sheep scaling the Kangra side of the pass, up steep snow slopes where the Guddis have hacked and kicked steps, is a wonderful sight. I wonder what a good old English sheep would say to it! On the N. slopes of the range are snowfields, which run along behind the main grat at an average of some 500 feet below its crest, sometimes more, sometimes running right up to gaps in the ridge itself and thus giving access to the peaks, for the rocks drop very steeply, often precipitously, to the snow. The snowfields form a convenient 'high-level route' to the back of these peaks, which, as is so often the case, are easiest from the side one cannot see from one's starting point.

The climbing periods are divided into two, from the third week in June to the first in September being impossible on account of 'the rains'—nearly 100 inches in this short time.

The first period, commencing in May, is mostly snow work, requiring some care not to start or get in the way of small avalanches. The second period is mostly rock work, as the rains have washed away most of the snow from the S. slopes and converted the N. snowfields into hard *névé* (with a soft surface in the middle of the day). There is often a heavy storm in October, which ices rocks and fills the crevices with snow or hail, as is also often the case with the frequent thunderstorms in May and June. Falling stones are practically non-existent, and the rock beautifully firm. Such are the conditions obtaining in this delightful little playground—the only climbing drawback being the absence of real glacier within reach.

At the foot of the Andrea Pass lies Lakha 'gôt,' or camping ground, where the Guddi flocks take a day or two's 'breather' before crossing the pass. From Dharmsala a path runs up to Lakha, not too good in parts, and in the hot weather the more energetic residents pitch pleasant little camps close to a large snow-bed whereon to disport themselves on all manner of luges. I have even skied on this *névé*, with my wife, in the middle of June. Dharmsala is probably the only place in India where 'winter sports' may be indulged in in the 'hot weather.' Lakha is about 10,500 feet.

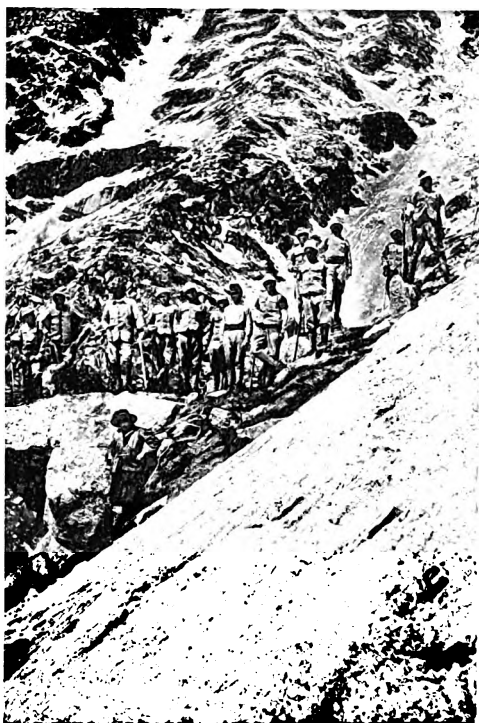
My first climb here was on June 18, 1908. After playing hockey, I got off at 6 P.M., and reached my bivouac below Lakha at 10 P.M. The next day I went up the Andrea Pass. Being alone I had not meant to go further, but as it was only 10 A.M., and a perfect day, I could not resist the temptation to set off across the snowfields to make a reconnaissance of 'Two-Gun Peak,' on which I had designs. After an hour across the snowfields I turned to my left and, cutting up for half an hour, gained a gap in the main ridge ('New Pass'). My view of Two-Gun Peak was cut off by a huge *gendarme*, which, from certain reminiscences, I called the 'Riffelhorn Gendarme.' Getting along to S. side of this I reached its top by a slanting crack with much puffing and blowing, and obtained a most excellent view of Two-Gun Peak. Local tradition has it that the two great blocks which form the two summits of the peak are guns guarding the Chamba valley below. Reaching New Pass again I continued straight along the main ridge eastwards, a very easy scramble which landed me at 3 P.M. at the top of 'Slab Peak,' about 15,700 feet—so called from the tremendous slabs which form the greater portion of its face. From here I had 2000 feet of good rock



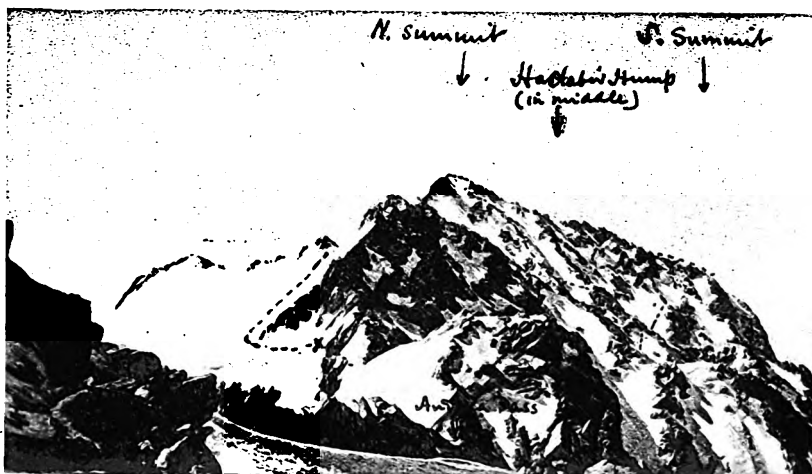
1



2



3



H. D. Murchinton photo

Swan Electric Engraving Co. Ltd.

4

climbing which took me down 'en face'—first down one arête till the slabs got too difficult for a single man, then a traverse across a couloir to another arête, and finally a 1000-foot glissade in a couloir, which took me to the grass slopes above Lakha. After a well-earned rest, a rather weary walk brought me home at 10 P.M. On September 23, with two Goorkhas, I reached New Pass from the Lakha side without any difficulty, and had some fun in getting down to the névé on the N. side, as the slope I had cut up in June was now a big slab. We got back to Lakha by the Andrea Pass, and home at 7 P.M.

The next day a merry party of us left for a ten-day holiday in the Ketul Nullah—three of us, Major E. D. Money, A. E. Barstow (15th Sikhs), an old climbing friend of mine, and myself—to make yet another attempt on the Dharmasala Matterhorn. There had been two previous attempts on the peak, in both of which Major Money had taken part, and this was to be by the same route. On the second evening our camp was pitched at about 6000 feet, our intention being to make two bivouacs at 11,000 feet and 14,000 feet. On the 28th we made a 'cache' of provisions, ropes, blankets, &c., at about 10,500 feet, which we picked up the next day and bivouacked a thousand feet higher up, having to carry water up for this night as we were not near snow, our party of three white men and nine Goorkhas and Guddis (who were acting as porters) being all heavily laden. On the 29th, for various reasons, we made a late start, and mounted but slowly up steep slopes of rock and grass, and arêtes of huge boulders, which were hard work for the porters. At about 1 P.M. we had reached 13,000 feet, and, sport not having been lost sight of, Barstow and I, giving our axes to a Goorkha behind, were making towards some golind (snow-cock) which we had seen settle. Gun in hand I scrambled over a big rock weighing some hundreds of pounds and stood looking for the birds, Barstow, with a rifle slung on his back, following. Suddenly I heard a cry from him, and, turning my head, saw a horrid sight. Barstow was pulling himself over the big rock, which, probably loosened by my passage and dislodged by his heavier weight, had begun to move. Gradually it reached the perpendicular—I shouted to Barstow to jump, but he could not, his boot was caught—then the stone toppled outwards and fell, with Barstow underneath it. About 5 feet below, two boulders formed a V-shaped notch, and into this Barstow fell, the rifle breaking his fall and being bent into a semicircle thereby. Luckily the rock was larger than the notch and remained

perched above him. Needless to say this ended our climb, and the peak had scored a third victory. We got Barstow out, much shaken and bruised and badly cut on one arm, and with some difficulty got him to the easier slopes and the base camp, where Mrs. Money, forewarned, was ready with much hot water and bandages, and so next day back to Dharmsala.

On October 24 I bivouacked with a brother officer at 'The Caves,' some overhanging rocks used as a sleeping-place by the Guddis, above Lakha, at over 11,000 feet. The next day, starting at 8 A.M., we reached the pass in two hours. After a short halt we set off across patches of névé and débris—the snowfields of June—to the back of the Riffelhorn Gendarme, where I left my companion, N. F. Graeme, wrapped in sweaters, and went on with two Goorkhas to attack Two-Gun Peak. The peak resembles the Aiguille de la Za at Arolla; 'en face' it is a precipice—in this case a wall of some 8000 feet sheer which can never be climbed, while to the N. a ridge drops to the snow. A slanting ledge, not difficult, but fairly sensational, led us to an easy chimney, which gave access to the summit, a most impressive one. The descent of a slab at the foot of the chimney, demanding care, took us to another ledge parallel to, and sensational as, the first one. By this we soon reached the névé again, where we did up the rope which we had put on for the descent. As it was afternoon, and there having been a slight fall of snow a few days previously, we had rather a tiring wade back to Graeme and on to 'the pass,' and for some reason I began to feel rather ill, a condition which was not improved by having to cut some steps in ice before regaining the pass. However, I soon got better as we descended to Lakha, where we spent the night again.

On November 21, with another brother officer, G. S. W. St. George, I bivouacked at Lakha again. My companion started the night by bringing down the Mummery tent as he got in, and we spent several chilly minutes righting it—bivouacking at over 10,000 feet at this time of year is cold work. The next morning we leisurely ascended the Andrea Pass. A knob of rock, 50 feet high, which I call the 'Zwischenjochen-grat,' divides the pass into two gaps, 100 yards or so apart, and from the top of the knob a splintered ridge drops to the névé on the N. side. As a cold wind was howling over the pass, we descended to the névé to get out of it and lunched in the sun. We had crossed the W. gap, and after lunch



5



H. D. Minchinton, photo.

6

Swan Electric Engraving Co. Ltd.

decided to go round the foot of the ridge and up to the E. gap—it would not take us more than a few minutes longer than returning the way we had come. On arriving at the ridge, however, we found ourselves cut off by an ‘impasse’ which I had not known was there, and so decided to climb straight up the ridge to the top of the knob. It was only a matter of 300 feet, the first half of which was visible and looked quite simple. So we roped and I led up over easy but rather iced rocks; then things altered and we found ourselves forced on to the shady side of the ridge, iced and snow-covered. A little chimney led to a ‘letter-box,’ on emerging from which I found myself at the foot of a slab which had to be turned by a really very nasty but fortunately short traverse of a wall with small holds. From the far end of this I fell off into some deep snow in a long chimney, and taking off the rucksacks, both of which I happened to be carrying, stowed them, and then myself, firmly into corners. St. George had remained round a corner, belaying me, out of sight of the traverse, and coming to it, flatly and wisely refused to attempt it. This placed us in a very awkward dilemma, however, as it was as absolutely impossible for me to retreat as it was for him to come on. Calling to him to unrope I hauled in the slack and scrambled up my chimney, which landed me nearly on the top of the knob. From here I managed to get down a very nasty little face till I could lower the rope down the slab that had originally stopped us, and so, after a few precarious moments, we both reached the top. Then I discovered that I had left the rucksacks down in the chimney, and by the time I had descended and fetched them and we had reached the pass again it was 5 P.M. We hurried down as quickly as possible, but were benighted at ‘The Caves,’ and it was two very weary officers who finally crept into their quarters at 1 A.M.

In 1909 I managed two good climbs in May, with the Goorkhas Rabia, Harkalal, and Juthia. One was the ascent of the main peak of the ‘Mon,’ of which a subsidiary summit had been climbed by Major Money and Colonel Bruce (‘A.J.’ 1904). After bivouacking at Lakha we started at 6 A.M. and in an hour had reached the foot of a huge snow couloir which leads direct to the top of the peak. The débris of an avalanche, fallen earlier in the year, made a kind of step-ladder for several hundred feet, after which step-cutting began. Gradually I made a diagonal course to a patch of rock at about 13,800 feet, which we reached at 9.30. Then the sun

struck the slope, which was composed of about a foot of soft snow on hard snow beneath. So for an hour I cut soup-plates and then reached a rock and snow arête on the left of the couloir, where we halted for a snack of food. This arête was easy, and Harkalal led to within 150 feet of the summit, the final 20 feet of which was steep and bad snow. To the N. of the summit a precipice of 800 feet fell to the snowfields; to the S. a long pinnacled arête led to the S. summit of the mountain; E. and W. arêtes sloped away. We began to descend the E. arête, but it would not 'go,' so we retreated to the top again and tried the W. one. This proved easy, and after descending some three hundred feet of snow and rock we were able to get off on to the snowfields behind the peak and begin a baking snow-grind towards the Andrea Pass. A little to the E. of the pass is a very similar depression, and we decided to make for this, thereby cutting off a good half-mile and a tiring descent and ascent. The short cut, however, nearly proved our undoing. To get to the gap we had to cross a very steep snow slope, and here Harkalal, who was last, managed to dislodge the surface and start a small avalanche, which carried him down, and he pulled Rabia off also. I had been expecting something of this sort and had the rope belayed round my axe beforehand, and, when the strain came, had it up to the head in the snow as I heard the 'swish' behind me. Although pulled off my feet, Juthia, who was leading, had the rope perfectly taut in front, so nothing serious happened. We watched the snow which we had dislodged slide down the slope, taking more of it *en route*, and come to rest on a gentle slope some hundreds of feet below. In a few minutes more we were on our new gap—Juthia Pass—and looking down a long snow couloir to the Lakha névé. First a cautious descent, then a long glissade took us down there, and thence to Lakha and home at 6.30 P.M.

We were again on the top of the Andrea Pass fairly early on May 30, and from there followed a long and easy ridge to the top of Slab Peak—except for one place, which is worthy of mention. A tall gendarme blocked our direct progress, and in order to turn this we had to make a 40-foot traverse of a slab, below which was a straight drop to the snowfields below. The slab was not set at a great angle, but was very smooth. At the end of the slab was a 10-foot wall, which, when I arrived at it, beat me. So I had to call up the second man, Rabia, and change places with him in the middle of the slab, not a very comfortable proceeding. With his boots

round his neck, and several remarks to the effect that it was no place for a married man, he defeated the obstacle and also a chimney above it, with ice in it, and he still bootless. We made the descent to Lakha 'en face' by ridges and couloirs to the W. of those I had descended by the previous year, and got some very enjoyable rock work on the way down. This year was a bad one, and I got no climbing in June. In October, however, Colonel Bruce came over to have another 'go' at the Matterhorn by the high-level route which we both fancied—over the Andrea Pass and along the snowfields to gain access to the 'vallon' at the head of which the peak lies. The history of this attempt is written in the Fourth Chapter of the First Book of Bruce, beginning at the seventy-seventh page, so I need say little about it. The incident of the spirits of wine will long remain in my memory, firstly on account of the abominable taste, secondly because, after drinking it, it flashed across my mind for a few seconds that it was poison, a ghastly enough thought at any time, and doubly so situated as we then were.

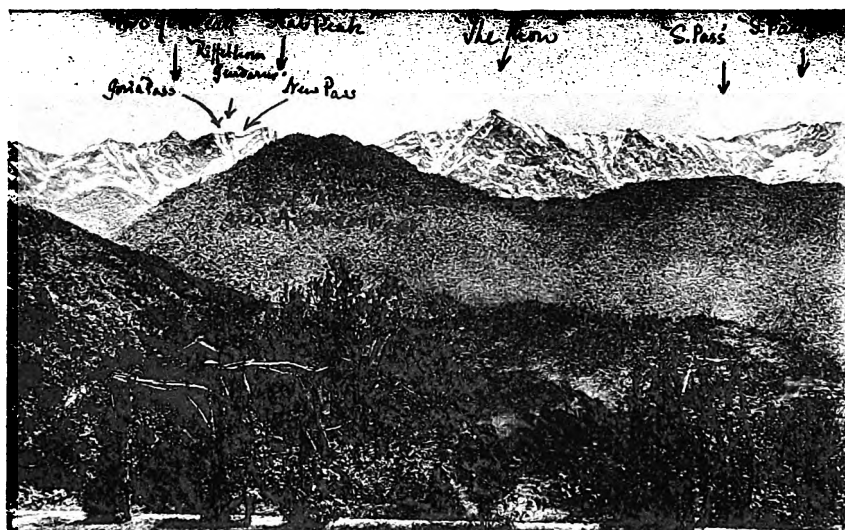
The season of 1910 opened with Major Money and myself, with a novice, trying to stroll up the pass in mist. The result was that we lost our way, and our novice had rather a thin time while we were extricating ourselves out of the difficulties we had got into on the lower slabs of Slab Peak. In May, with Gorla and Hastabir, I made the first ascent of the W. summit of Two-Gun Peak. We first climbed the E. summit, whence a small descent took us to the foot of the huge boulder forming the E. summit, where Hastabir's shoulder made an effective ladder and enabled us to look down the tremendous face of the peak, as narrow as the Aiguille de la Za, but some 8000 feet deep. After getting off the peak, we crossed the main ridge by a new gap—Gorla Pass—to the west of the Riffelhorn Gendarme, and had some tremendous glissades down three thousand feet of couloir before we got to the grass slopes above Lakha. This was a very quick trip, and only took us six hours from the bivouac and back to Lakha.

The second expedition worthy of record this year was a traverse of the S. peak of the Mon, the success of which was due to Hastabir's powers as a rock climber. Starting from the usual bivouac at 5 A.M. on June 12, we had a preliminary descent and ascent of 1000 feet through wet grass and boulders to reach the foot of the S. arête of the peak. Most of the 4000 feet from here to the top was very enjoyable climbing, some of it of quite high order, during which, for about 1000

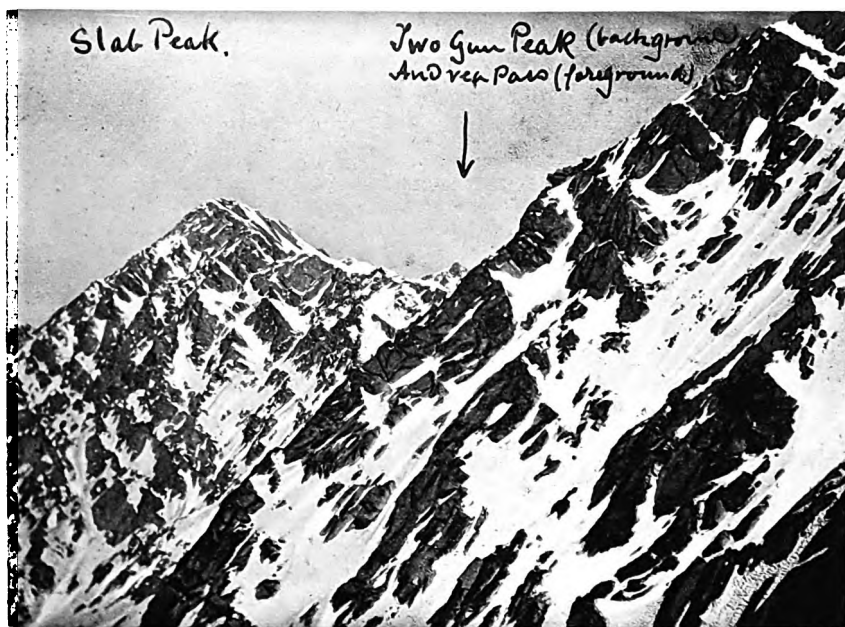
feet, Hastabir led. At one place there were some nasty slabs, shelving out over space, followed by an overhanging crack, at the bottom of which I had to give Hastabir a shoulder up from a little cave. Then followed a tremendous slab, which had to be traversed half across to get to a crack which led to a ledge above. This ran out all the 100-foot rope before Hastabir got into safety from which to belay me. When far below this slab, which is clearly visible even from Dharmsala, we had seen a family of 'thar' bounding up it and had pronounced it impossible for us. Luckily it proved possible when we arrived at it, for it was the only way to the rest of the climb above. Then followed enjoyable couloirs and an easy arête to the top. We had to ascend nearly half-way to the N. summit before we could begin the descent down the S.W. face towards Lakha. The first 2000 feet were very nasty slopes of hard snow, covered with soft, at a steep angle, and a thick mist added to the difficulty. However, we got off this in time into a couloir of good snow, and so reached Lakha in the late afternoon, and home at 7.30 P.M.

In September Hastabir and I climbed 'Hastabir Hump'—quite easy—and in October, with two other men, I reconnoitred the high level towards the Matterhorn as far as the 'S' Pass, a disused Guddi pass. Major Money was then engaged in another attempt on the Matterhorn by crossing the Tulung Pass to the E. of the peak. From here he hoped to gain access to the snowfields behind the peak, but found himself cut off from them by another high ridge which we did not know was in the way, and spent the remainder of his ten days' leave in crossing this and getting back to Dharmsala over the Toral Pass. This was very tantalising, as he passed close to the peak on the way back, but time did not allow of an attempt, so the Matterhorn scored again—its sixth time 'not out.'

The 1911 season was devoid of anything of great interest, though I repeated several old climbs and had the pleasure of taking another brother officer to the top of Two-Gun Peak, which he, Captain Holderness, enjoyed very much. I find my pleasure in getting away amongst the great peaks and eternal snows far greater if I am showing these treasures to another and feeling that he, too, is feeling something of the love and awe which I feel, and all mountain-lovers must, doubtless, feel the same. An attack of enteric, though slight, rendered any after-rains climbing out of the question, and the following season saw me back in Switzerland, where I



7



H. D. Minchinton, photo

8

Swan Electric Engraving Co. Ltd.

began the season early with a guideless ascent of the Dent du Midi in January.

The season of 1913, though short, was very sweet. It commenced with a strenuous 14-hour day in the middle of May. Leaving Dharmsala itself at 6 A.M., Harklal, Jaising, and I breakfasted at the Lakha bivouac place at 9 A.M. and then went up 'the pass,' all wearing crampons, to which I had been introduced in Switzerland the previous year. Half-way up it began to snow, but we pushed on and reached the top at 1 A.M. After a half-hour halt we set off in driving snow to do the small traverse of the adjoining Hastabir Hump to Juthia Pass, which took us $1\frac{1}{2}$ hours, the conditions making it really good training. Long glissades took us back to the Lakha névé, where a coolie with my skis and ski-boots was waiting. Doing a quick change, I got a run of about a mile to the Lakha huts and had a rest before the men caught up. A rather weary trudge home ended a good day of 9000 feet ascent and descent again.

On June 1 I got a long week-end at Lakha, ten days in fact, and established a base camp there, with my wife in charge. It was high time for another attempt on the Matterhorn, and across the pass lay the high-level route waiting to be tried again. On the 3rd, Jaising and I, with a Guddi to act as porter, went up the pass and made a 'cache' of provisions and firewood at the top. Then Jaising and I set off across the snowfields to the back of the 'S' Pass—as far as I had explored in October 1910. From here we made the first ascent of the 'S Pass Peak,' about 16,000 feet, by an easy snow ridge, whence we got a fine view of the Matterhorn, and most of the route to it. A short rock arête proved a more interesting way back to the 'S' Pass, whence we returned in our former tracks to the Andrea Pass and camp. We were very tired, as it had been a twelve-hour day, with few and short halts, mostly at over 15,000 feet in deep snow and under a burning sun. We had been above a tremendous sea of clouds which had given showers of rain at Lakha. The next day was one of rest in consequence.

On the 5th it began to rain, but we made a start at 6.30 A.M. The party was reinforced by Hastia and Ajabsing; the latter only came as far as the pass and then returned, leaving four of us, including the Guddi, to go on. We were now four, and with the previously deposited 'cache' to be carried as well were all heavily laden—a Mummery tent, blankets, food for three days, some cooking pots, and a supply of wood for the

first night. On the N. side of the pass we got above the clouds, and, what with the softness of the snow and the weight of our loads, it was not till 5.30 p.m. that we reached the N. side of the 'S' Pass and looked over a little col down easy snow slopes at the foot of which I hoped to bivouac. At this little pass, which I called the Toral-Limmi, we had a half-hour's well-earned rest and then started downhill, I hurrying on ahead to select a sleeping-place. The valley into which we were descending reminded me of the Arolla Valley, our 'Matterhorn' standing in place of the Mont Collon, and névé and snow slopes supplanting the Arolla glaciers.

At 6.30 p.m. I came on the first patch of grass, still wet with the recently melted snow, but as the men were some way back, and it was getting dusk, I decided to bivouac on it. By 7 p.m. the men had arrived, put the tent up, and got a fire going. As the two Goorkhas and the Guddi elected to sleep huddled in a lump against a sheltering rock, I had the tent all to myself, but owing to the dampness and cold of the ground the luxury was wasted. Our bivouac was at about 13,500 feet, or over, and above the firewood limit, so it was lucky we had brought wood ourselves. The next day began badly with seething mists and rain, but we determined to persevere and at 7.45 a.m. Jaising and I dived into the clouds. Hastia and the Guddi were left to dry the blankets and other things in the sunshine, should there be any later, and also to descend and cut and bring up firewood. Jaising and I had first to descend another thousand feet over steep snow and grass, which brought us to a partially frozen lakelet and a little broken-down hut—we should have bivouacked there had we known of its existence. From the lake we had a good 2000 feet of soft snow to grind up, which took it out of us somewhat. However, this brought us to the snow-covered névé at the foot of our peak, which suddenly seemed to rise out of the mists as the clouds sank to a lower level. A longed-for halt was called, and we had a meal whilst watching a tremendous 'mer de nuage' form itself, luckily below the level of our 'gîte,' which got the desired sun on it. Discarding everything superfluous, such as rucksacks, water-bottles, even the spare rope, as the peak, at this close range, gave no evidence of requiring it, we made a laborious ascent in knee-deep snow to a little col to the E. of our peak, whence we looked over on to the precipitous N. face and the steep Jia Nullah far below us. There now remained but one arête, of about 500 feet, to take us to the summit. The first

400 feet had to be treated with great respect, as it consisted of a snow arête, with here and there a patch of iced rock showing, the surface of the snow on the S. side being in a very avalanchy condition and having to be avoided as much as possible. The last hundred feet was easy rock, and we cast off the rope to save time and hastily scrambled up the last few feet to the summit—at least so we thought. But the peak had not done with us yet, for we discovered the true summit, which had looked distinctly lower from our break-fast place, to be some ten feet higher than the one we were on, and separated by a nasty-looking gap. Sending Jaising back for the rope, I climbed down some uncomfortable rocks into the gap and waited for the rope. Attached to this, I cut up a short but very steep slope of nasty snow and so arrived at last on the true summit. The view was extraordinary; everything below 13,000 feet, including the base camp at Lakha which we had hoped to see, was hidden by a vast 'mer de nuage' extending to all appearances from far Kashmir to the plains of the Punjab, with numberless snow-capped and rock-pinnacled giants piercing through it. It was now 2 P.M., so we had not much time to idle: long enough, however, to erect a minute cairn on the spot I had looked at and longed to stand on for over five years. This time the peak had not won, but it had taken seven attempts, and a large amount of exertion at the last, to defeat it. The arête took some time to descend with care, but after getting off it we made good time back to the 'gîte,' getting in just before 6 P.M. to find everything nice and dry and the fire ready burning. Next day we were off at 6 A.M. and reached the Toral-Limmi at 8 A.M., and the Andrea Pass at noon. Glissades took us down quickly and the base camp was reached in time for a large lunch, much appreciated, as was also the ensuing sleep, after three fairly long and strenuous days. Unfortunately, bad weather prevented any further climbing in the remaining five days of my leave.

In October, with my wife, I was encamped for shooting at a delightful little lake, called Kareri Dal, and one day we went up the rarely frequented pass behind it, about 14,550 feet, finding armfuls of edelweiss *en route*. From this pass we looked down into the valley of the seven little lakes, the highest of which, the Lam Dal, is very sacred and rarely visited by Europeans. A short rock ridge gave some sport before reaching the top and, missing the track on the way down in mist, we had as nasty a descent of 200 feet of grass ledges as I ever

wish to have. Luckily I had two good orderlies to assist my wife.

This small playground has still more than sufficient virgin summits, and other routes up the climbed ones, to afford week-end scrambles for many a year to come.

NOTES ON MR. MINCHINTON'S ILLUSTRATIONS.

1. The 1913 bivouac at 13,500 feet, behind the Dharmsala Matterhorn, seen in background to right.

2. The summit of the Dharmsala Matterhorn (1913).

3. A training party above Lakha.

4. The 'Mon' from ridge of Slab Peak. The dotted line in centre is the line of ascent 1909; to left is line of descent same day, and × the place of our slip. The dotted line to the right is the line of descent, in 1910, from S. summit, reached from the other side—a difficult rock climb.

5. A training party, with Lieutenant Minchinton, Major (now Lt.-Colonel and C.I.E.) E. O. Money, and Captain Johnson—all of 1st K.G.O. Goorkha Rifles, Dharmsala, 1908.

6. 'Beer at the bivouac,' 1909, after the first ascent of the 'Mon' seen in the background. The summit (not seen in the picture) is 5000 ft. above Lakha, the bivouac place. The dotted line is the line of the 1909 ascent. The 1910 ascent was by the arête seen in profile on the right, the descent being made by the 1909 route.

7. Dhaoli Dhar range seen from Dharmsala cantonments. The summits climbed and named are marked.

8. Looking W. from about 13,000 ft. on the 'Mon' (1909).

The ascent of Slab Peak was made in 1909 by the ridge from the Andrea Pass; in 1908 from the opposite side; the descents in each case, and an attempted ascent in 1910, by various ridges on the face of the peak.

THE NORTH FACE OF PIZ QUALIVO *

By E. L. STRUTT.

ON June 26, 1914, I left the Allievi Club hut accompanied by Josef Pollinger, of St. Niklaus. It may here be incidentally remarked that this hut is now restored to its pristine state of cleanli-

* The Pizzo del Ferro Orientale of Lurani, the *Guida*, and the Government maps; 3221 m., S. map; 3207 m., I. map; 3198 m. = 10,493 ft., Lurani—the most likely height.

ness and comfort, although the stove still justifies the sarcastic remarks in the visitors' book, dated 1905. At 4.20 A.M., the hour of departure, the morning was intensely cold, with, at first, a furious wind from the N.; we walked rapidly up to the Forcella di Zocca and attained that pass at 5.0. A very short halt was made to put on the rope and discard clothing which the now obviously perfect day would render superfluous. Our plans were chaotic, but glissading down to the surface of the Albigna glacier we bore W. till almost under the Torrione del Ferro* (3238 m., *Lurani*; 3174 m., *S. map*). Certain designs in the minds of the party were at once dissipated by one glance at that peak and its neighbours. After the dreadful weather of the preceding fortnight the quantity of snow everywhere was indeed enormous; every ridge and gully was heaped and choked with it; the Ago di Sciora was a snow needle, the Punta Pioda a miniature Dent Blanche; even the great E. precipice of the Sciora di dentro resembled nothing save the N. face of the Lyskamm in a hot late summer. All this snow, however, after two fine days, was in admirable condition, hard frozen, and of rock-like consistency. Josef at once eagerly agreed to my proposal to try Piz Qualivo direct up its virgin N. face, so, retracing our steps to the E., we embarked on the ascent immediately under its W. or highest point, just about the spot marked 2732 m. on the Siegfried map. We crossed the large bergschrund without the slightest difficulty and step-cutting commenced at once. At first the snow slope was of no great steepness, some 45°, but after surmounting perhaps 50 ft. it assumed a formidable angle. I measured it as 60°-65°, and such it must have averaged right up to the top. We were soon obliged to bear ever very slightly to the left, S.E., to avoid some small fast-moving missiles which fell from the great overhanging cornice above—perhaps a foretaste of what was to occur to one of us later in the year in France (!); this risk was, however, infinitesimal, and after a few steps ceased altogether. My companion was in his very finest form, and we advanced without check save where it was necessary to cross the deep-cut avalanche grooves. There were five or six of these altogether, and their banks were of the most extraordinary steepness, handholds being an absolute necessity. Once, much higher up, we struck a precipitous snowy rib to our left, E., but the ominous ring of the axe on solid rock slabs at a depth of two or three inches drove us back on to the face, and there we continued till right under the great gendarme forming the central point or peak of the mountain. This rocky point being obviously impregnable from where we stood, we traversed diagonally to the left, E., and got on to the aforementioned snowy rib, now very sharp, just where it abutted against the summit ridge, E. of the gendarme. The cornice or snow wall was here only some 10-12 ft. high, and Josef soon sliced off a platform in the crest; glancing

* The Ferro Orientale of the *Climbers' Guide*.

round at me for the first time, he invited me to climb on to his shoulders; the situation was a most airy one, but a severe struggle quickly landed me on the summit ridge 10 ft. to the E. of the gendarme, and my companion rapidly followed by means of the rope. It was 7.42 A.M. only [the summit is about 40 ft. higher and 10 minutes distant from this point], and as the height of the N. face is measured as 490 m. on the map, some idea may be gained of the wonderful—probably unrivalled—skill displayed by my old friend in cutting up this formidable wall in just over two hours. We were soon joined by Major Lindsell and his guides, who from the same starting-point had made the ascent by the E. arête, and while they proceeded to the summit, on which I had already set foot on two occasions, Josef and I amused ourselves by scaling the gendarme; there is, however, an easy crack to the N.W. by which the tooth can be climbed in two minutes without the formation of the human pyramid by which we reached the top.* Soon after 9 A.M., the entire party slid and glissaded down the easy S. face of the peak into the Val Ferro, by which long and steep glen, without, to my secret gratification, losing my way, we got down in sweltering heat to San Martino and thence to the ever-charming Masino Bagni.

In the conditions described above I cannot too highly recommend this ascent, and I am sure that any member of the Club led by a first-class iceman will thoroughly agree with me. It must, however, be remembered that the expedition is only feasible in a *snowy June*. Later in the year the entire N. face becomes a gaunt and icy slope of bare rock slabs of the most evil and probably impossible description.

I should also like to recommend, as short climbs suitable for seasons such as the last three, the ascents of the Punta Milano and Punta Fiorelli. The former is an enormous gendarme, perhaps 300 ft. high, situated in the Oro pass, due W. of the Baths. The pass is reached in three hours or less from Masino, and thence an interesting and exposed scramble of 30–45 minutes up the tooth's S. arête brings you to the top.† Our ascent of June 23 was the third.

The Punta Fiorelli, ‡ almost S. of the Baths, is very imposing from many aspects; it is an easy scramble, airy in its upper part, of 3½ hours from Masino. The S.W. arête is so far the only route. Our ascent was only the third or fourth.

* See *A.J.* xxv. 744.

† For a very highly gilded description of the ascent, see *Guida*, pp. 110–11, with an (incorrectly) marked photograph.

‡ For a still more coloured account, see *Guida*, pp. 126–7. This description is also topographically inaccurate. From either the Merdarola or Ligoncio glens you should attain the deep gap S.W. of the peak and thence follow the watershed to the top.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
22.
23.
24.
25.
26.
27.
28.
29.
30.
31.
32.
33.
34.
35.
36.
37.
38.
39.
40.
41.
42.
43.
44.
45.
46.
47.
48.
49.
50.
51.
52.
53.
54.
55.
56.
57.
58.
59.
60.
61.
62.
63.
64.
65.
66.
67.
68.
69.
70.
71.
72.
73.
74.
75.
76.
77.
78.
79.
80.
81.
82.
83.
84.
85.
86.
87.
88.
89.
90.
91.
92.
93.
94.
95.
96.
97.
98.
99.
100.



Sican Electric Engraving Co., Ltd.

JOHN BEAUMONT CORRY.

1874—1914.

IN MEMORIAM.

JOHN BEAUMONT CORRY.

THE members of the A.C. have heard, with the very greatest regret, of the death in action on November 4 of Major J. B. Corry, D.S.O., R.E., 3rd Sappers and Miners (Indian Army). On the night of November 4 he was engaged digging trenches, when about 10 P.M. three howitzer shells burst almost together; one of them landing right in the trench killed, instantly, him and four of the men. He was buried at Sailly-sur-la-Lys.

Major Corry was born in 1874, the second son of the late Mr. John Corry, of Croydon, the elder son being our well-known member Mr. Robert Corry. He took the Pollock medal at Woolwich and joined the Royal Engineers in 1894. He served on the North-West Frontier of India in 1897-1898, taking part in the operations on the Samara and the relief of Gulistan, and receiving the medal with two clasps. Serving in the Tirah campaign he took part in the capture of the Sampagha and Arhanga Passes, and the Waran Valley, Bazar Valley, and other operations. In 1901 he served in the Mekran expedition and took part in the attack and capture of Nodiz Fort, being twice severely wounded. He was mentioned in dispatches in this campaign and received the D.S.O. He had been in the 3rd Sappers and Miners (formerly called the Bombay S. & M.) from the time he went to India until he came to England last year on leave. He was transferred to the Military Works Department and was stationed at Bannu when the war broke out. He sailed for France with the 2nd Indian Contingent as a reserve officer, but rejoined his old corps in place of an officer killed on October 28. The two companies of his S. & M. lost nine officers in a single week. He himself only left Marseilles for the front on October 31 to meet his death four days later.

Corry was elected to the A.C. in 1908. He first visited the Alps in 1893, when, led by old Christian Almer, he ascended the Eiger and the Wetterhorn. His subsequent visits were at intervals of five years when he was home on leave from India. The Scerscen Grat in 1913 was about his last big climb—the ridge in that year being in bad order and probably only done once. He made some expeditions in the neighbourhood of Quetta and had a season in Kashmir as recorded 'A.J.' xxvi. 85-7.

Although his opportunities for mountaineering were limited he possessed considerable capacity for finding his way on a mountain, and acted as leader on the Kashmir expedition. His visits to the club were, of course, infrequent, but he was one of those men whose place in their friends' affections never suffered

through absence. He has now fallen in the service of his country on the field of battle, but among all his honours there will be no more heartfelt tribute than is paid to our dead comrade by the members of this Club.

THE ALPINE CLUB LIBRARY.

The following works have been added to the Library since May :—

Club Publications.

C.A.I. Guide e portatori anno 1914.

24 × 19 : sheet.

D.u.Oe.A.-V. Bludenz. Jahresberichte 1908-1913.

1909-1914

7½ × 4½.

Sucal. Tendopoli. Tendopoli nell' alta Valtellina Gruppi Bernina-Albigna 3-24 Agosto 1914.

1914

6½ × 4½ : pp. 48 : ill.

New Books and Articles.

Abraham, G. D. The highest climbs in the world. In Baily's Mag. London, 9½ × 5½ : pp. 82-89 : ill. August, 1914

Abraham, G. D. Some new British climbs. In Wide World Mag. London, vol. 33, no. 197. August, 1914

9½ × 7½ : pp. 412-421 : ill.

Allan, John A. Rocky Mountain section between Banff and Golden. In Canada, Depart. Mines Report Geol. Surv. 1912. 1914

9½ × 6½ : pp. 165-176.

Bailey, Capt. F. M. Exploration on the Tsangpo or Upper Brahmaputra. In Geogr. Journ. London, vol. 44, no. 4. October, 1914

9½ × 6½ : pp. 341-365 : map, plates.

v. Baudissin, Eva. "Sie" am Seil. München u. Wien, Schmidkunz, 1914

7½ × 5½ : pp. viii, 175.

A pleasant account of climbs above and underground in the eastern Alps.

Bell, James Mackintosh. The wilds of Maoriland. London, Macmillan, 1914

8½ × 6 : pp. xiii, 257 : map, plates (some col.).

Benson, C. E. British mountaineering. Second edition (revised and enlarged). London and New York, Routledge, Dutton (1914). 1/-

7 × 4½ : pp. x, 226 : ill.

Burling, Lancaster D. Early Cambrian stratigraphy in the North American Cordillera, with discussion of Albertella and related faunas. In Canada, Depart. Mines, Geol. Surv. Museum Bull. No. 2, Geol. Ser. no. 17.

9½ × 6½ : pp. 93-129.

July 6, 1914

(Cameron, Alexander.) Panoramic and Contour View of Grampian Range from View-point, Grantown on Spey. Aberdeen, Cornwall, 1914. 2/6

22 × 22 : lithographed.

Panoramic views of this kind for various parts of the Alps have long been common. This is the first we have seen of any British range.

Catalogue. Selected list of books on mountaineering. New York Public Library.

New York, 1914

6 × 4 : pp. 15.

- Christa, Emanuel.** Routen-Führer durch das Heiterwandgebiet.
6 × 4½: pp. 81: maps, frontispiece. Imst, Egger (1913)
- Conway, Sir Martin.** Tragedies and heroisms among the mountains. In
Quiver, London, vol. 49, no. 10. August, 1914
9½ × 6½: pp. 928-932: ill.
- Daly, Reginald A.** Geology of the Selkirk and Purcell Mountains at the
Canadian Pacific Railway. In Canada, Depart. Mines, Report Geol.
Surv. 1912. 1914
9½ × 6½: pp. 156-164.
- Daudet.** Tartarin sur les Alpes. Comédie pittoresque, en cinq actes. . .
(d'après le roman d'Alphonse Daudet). Par Léo Marches.
7½ × 5: pp. 138. Paris, Libr. théâtrale, 1913
- Duncan, Jane E.** A Summer Ride through Western Tibet.
6 × 4: pp. 316: plates. London & Glasgow, Collins (1914)
- Huot-Sordot, Léon.** En la lando de la Blanka Monto. El la franca lingvo
tradukis Dro Noel. Paris, Presa esperantista Societo, 1913
7½ × 5½: pp. 71: ill.
This is the first piece of alpine literature in esperanto, and it is very
suitable that it should be on Mont Blanc.
- Légaré, T. F.** The Jungfrau. With a short account of the Jungfrau Railway.
In Fry's Mag. London, vol. 21, no. 4. August, 1914
9½ × 6½: pp. 419-426: ill.
- McConnell, R. G.** Portions of Portland Canal and Skeena Mining divisions,
Skeena District. B.C. Canada, Depart. Mines, Geol. Surv. Mem. 32:
Geol. Series, 25. Ottawa, Gov. Print. Bur. 1913
9½ × 6½: pp. ix, 101: map, plates.
- Martel, E. A.** La "perte" et le cañon du Rhône. In La Géographie, vol. 29,
no. 3. Mars, 1914
11 × 7: pp. 153-163: ill.
- Michel, Albert.** Bergtod und andere Gedichte. München, Steinebach [1914]
7½ × 5: pp. 30.
Contents:—
Bergtod, Emil Zsigmondy, Am Totenkirchl, Kufstoaner Führer, Im
Kaisergebirge, An der Zugspitze, Das Sterben der Berge.
- New Zealand.** Tourist and health resorts department. Annual Report. 1914
13½ × 8½: pp. 15: plates.
Contains notes of climbs made in the Southern Alps.
- Niccolai, Prof. Francesco.** Mugello e Val di Sieve. Guida topografica storico-
artistica illustrata. Borgo S. Lorenzo, Off. tipogr. Mugellana, 1914
6½ × 4½: pp. xiii, 752: map, ill.
- Rabl, Josef.** A. Hartleben's Illustr. Führer no. 67. Illustrierter Führer auf
der Nittenwaldbahn . . . mit einem Anhang Die Stubaitalbahn und
das Stubaital. Wien u. Leipzig, Hartleben, 1914. M. 6
6½ × 4½: pp. viii, 292: maps, plates.
- Schofield, S. J.** The Pre-Cambrian Rocks of Southeastern British Columbia
and their correlation. In Canada, Depart. Mines, Geol. Surv. Museum
Bull. No. 2, Geol. Ser. No. 16. July 3, 1914
9½ × 6½: pp. 79-91: map.
- Spiro, L.** Les devoirs du chef de course en montagne. Lausanne, Tarin, 1914
8½ × 5½: pp. 43.
- Terschak, Emil u. Fritz.** Führer durch Ampezzo und die Hochtouren um
Cortina. 2 Aufl. Leipzig, Hirzel, 1914. Kr. 1.80
7½ × 5½: pp. 70: map, ill.
- Töpffer, R.** Reisen im Zickzack. München u. Leipzig, Müller, 1912
7½ × 4½: pp. vi, 405: ill.
- Trautwein.** Das Bayrische Hochland mit dem Allgäu, das angrenzende Nord-
tirol, Voralberg, Salzburg nebst Salzkammergut. 16. Aufl. Bearbeitet
von Anton Edlinger. Wien u. Leipzig, Edlinger, 1914
6½ × 4½: pp. xxxii, 373: maps, etc

- Waltenberger, Eugen.** Allgäu, Vorarlberg und Westtirol nebst den angrenzenden Gebieten der Schweiz. Allgäuer Alpen, Bregenzerwald, Bodenseegebiet, Arlbergbahn, Füssener Gegend, Tannheimer Berge, Lechtaler Alpen, Rhätikon, Fervel-, Silvretta- und Samnaun-Gruppe. 14. Aufl. $6\frac{1}{2} \times 4\frac{1}{2}$: pp. xiii, 436: maps. Wien u. Leipzig, Edlinger, 1914
- Workman, Mrs. F. B.** Exploration du glacier Siachen ou Rose. In *La Géographie*, Paris, vol. 29, no. 3. Mars, 1914
 11×7 : pp. 163-177: ill.

Older Books.

- Allbut, Robert.** The tourist's handbook to Switzerland. London, Nelson, 1884
 $7 \times 4\frac{1}{2}$: pp. ix, 344: maps, ill.
- Green, William.** A Description of a series of sixty small prints etched by William Green of Ambleside, from drawings made by himself. London, printed for the author, and published by William Green, Ambleside, 1814
 $5 \times 8\frac{1}{2}$: pp. 34: lithographs.
- van Nievelt, C.** Een Alpenboek. Wandelingen in de zwitsersche en tiroler bergen. Leiden, v. Doesburgh, 1886
 $7\frac{1}{2} \times 5\frac{1}{2}$: pp. viii, 349.
- Bergstudien. Een omgang in het land der Dolomieten. Leiden, v. Doesburgh, 1888
 $7\frac{1}{2} \times 4\frac{1}{2}$: pp. iv, 191.
- Tuckett, E.** Pictures in Tyrol and elsewhere. From a family sketch-book. Second edition. London, Longmans, 1869
 $8 \times 5\frac{1}{2}$: pp. xi, 313: ill.
- Zeller, Max.** Führer durch die Berchtesgadener Alpen. München, Deutsch. Alpenz., 1911
 $6\frac{1}{2} \times 4\frac{1}{2}$: pp. x, 277: map, ill.

ALPINE ACCIDENTS IN 1914.

FATAL ACCIDENT ON THE COL CHAMONIN.

EARLY on August 6 two parties—Signora Alice Omodeo and Signor Moriondo Santino, with the Cogne guide Pietro Clemente Gérard; and two priests of the Val d'Aoste, MM. Alessio Bovard and Cesare Perron, with the ex-garde-chasse Battista Peano of Val Savaranche—left the V.E. hut to cross the Col du Grand Paradis and the Col Chamonin to Cogne. The whole of the previous night was a violent snowstorm. The parties gained the first col in 2 hr. and then roped all together before attacking the steep approach to the second col. The rocks were covered in fresh snow.

Gérard, leading, proceeded to cut steps when the lady slipped, fell on Santino and dragged first Gérard and then Bovard out of their steps. In a vain attempt to stay the fall the latter sought to secure the rope round a rock, but it broke above him involving him in the catastrophe. The four rolled and bounded down the couloir, striking the rocks, and when the survivors were able to get to them on the Noaschetta Glacier 1500 ft. below they found only Gérard still breathing. They managed to carry him up to the Col du Grand Paradis where he died.

The bodies were recovered by a party of men from Val Savaranche where Gerard and Bovard were buried in the little cemetery beside the four Englishmen who lost their lives on the N. face of the Petit Paradise

The order of roping was obviously wrong and undoubtedly contributed to the fatal issue of the accident.

NEW EXPEDITIONS IN 1914.

Alps of the Grisons.

JUPPERHORN (3151 m. = 10,335 ft.) BY W. ARÊTE.—On July 22, 1914, Messrs. Rodk. Williams, A. N. Solly, and G. A. Solly, starting from Cresta-Avers reached the summit by the hitherto unclimbed W. arête in about six hours. It took about two hours to get to the more easterly of the two little lakes on 'Auf dem Bande.' Near the lake the ridge dips a little before rising to the final point that overlooks the valley.

'From the lake we went over scree and some snow to the ridge, reaching it just past the first tower above the lowest point. From there we kept as nearly as possible to the ridge, traversing occasionally for a short distance, generally on the S. side. The mountain has a reputation for being rotten, but the rocks did not seem to be more loose than is usual on ridges seldom or never climbed, and in most places they were not very difficult. At one point you have to go through an archway, and coming through the arch there appears to be a very steep drop, but there is no real difficulty; at another point there is a grand view through a needle hole of perpendicular cliffs on the southern face of the mountain. Not far from the top comes the only real difficulty—a very steep tower of reddish rock and about 60 ft. in height. There is a crack in the rock at the steepest point where an arm can be jammed in, and then a foot, otherwise it would hardly be practicable. When we got to the top sleet was falling, and we only got glimpses of the other ridges, so we returned by the ridge that we had come by. We descended the tower by a looped rope. A little lower down, and before coming to the archway, we left the ridge, and descended some steep snow on its N. side, keeping on the snow until we were only about 20 min. from the lakes. In a less snowy year, or later in the season, there would be much less snow, and it might be quicker to adhere to the ridge.'

G. A. S.

CENTRAL CAUCASUS.

Adai (Uilpata) Group.

BUBISKHOKH, 14,874 ft. (?).—This is the fine peak called the 'Double Peak' in Messrs. Freshfield and Sella's great work on the 'Exploration of the Caucasus.' It is one of the highest—probably second in height—of the group. It is situated at the head of the Bubis glacier on the Asiatic side, but its main watersheds are those of the great Karagom and N. Tsaya glaciers on the European side of the range. The Grand Combin-like mass of Tvilis Mta (unascended) greatly obscures views of it from the S. It was ascended on July 20, 1914, by a party consisting of Rembert Martinson, Harold Raeburn, R. C. Richards, and H. Scott Tucker. Leaving a high camp 9300 ft. just above the lowest icefall of the Tsaya glacier at 1.5 A.M., the route followed led through the second icefall and across to the foot of Woolley's Rock, the end of the spur separating the N. and S. Tsaya glaciers.

Climbing this spur by means of an easy snow gully, later probably ice and scree, access was gained to the almost flat névé of the N. Tsaya glacier above its very formidable icefall at 4 A.M. The whole length of the glacier was then traversed below Adai and the 'Shoulder' to the foot of the enormous snow couloir which separates the two peaks of 'Double Peak.' This couloir is about 3000 ft. high and is set at an angle of from 50° to 55° (clinometer). Bergschrund 9.40. Ascent to the col was made mainly by the couloir. An attempt was made to utilise the rock ridge on the left (south); this had to be abandoned owing to the excessive steepness and rottenness of the rocks. Fortunately the snow on the ice just held, though thin, and the col was reached at 12.30 about. This S. route will probably be impossible late in the season and after much fine weather. From the col a corniced steep snow arête led easily to the summit, a sharp rock peak covered with new snow, 1 P.M. Return was made by same route, and high camp regained at dark, 9 P.M. Snow very bad and soft.

ADAI-SONGUTA PASS—FROM TSAYA TO KARAGOM.—Reached from Tsaya (Adai) side, but not crossed. From a camp about 9500 ft. on highest grass below hanging terminal icecliffs of Adai glacier, the same party started at 3.5 A.M. on July 15. Holding to left below the rock walls of the great S.E. spur of Adai, they ascended the i. moraine of the glacier, then the glacier itself in the direction of the S. buttress of Songuta. In the direction of Adai the route is barred by a steep cliff, over which pours the ice from a broad shelf of névé on the N.E. face of Adai. This fall is merely the overflow of Adai's N.E. névé and hanging glaciers. The main stream passes through a gap between the mountain and its S.E. spur and falls into the N. Tsaya glacier. It may possibly

afford an easier route to the A.-S. col and Karagom glacier than the Adai glacier. Climbing up the lower rocks of the Songuta buttress (something like the ordinary route of the Gabelhorn) for about 1000 ft., just as the rocks became somewhat hopelessly steep, a narrow ledge bearing left was hit upon, which led below overhanging rocks into a snow couloir, above the vertical ice-crowned cliffs on the left (W.). This led easily to the circular snow basin below the col. The actual col being crowned by gigantic cornices and many signs of avalanches about, a turn was made to the right and the watershed ridge gained by one of Songuta's narrow pinnaced rock arêtes.

From the ridge the descent upon the névé of Karagom appeared easy. Owing to exhaustion caused by the very severe labour of forcing the passage through soft snow, the ascent of Songuta itself was not tried. The peak does not appear easy, especially when, as on this occasion, the steep rocks are covered with fresh snow and ice.

The return was made by same route, and the upper camp reached at 7.20 P.M. The height of the pass is about 13,000 ft. This is a very fine but difficult pass upon the S.E. or Tsaya side. The problem of an easy Tsaya-Karagom pass is not yet solved. The easiest—in appearance—lies between Bubis and Tvilisis, across the head of the Bubis glacier.

TSAYA-KARISSART PASS (about 13,000 ft.).—This is the col immediately W. of Tsaya Khokh. It presents no serious difficulties, and is said to be occasionally crossed by hunters. The same party reached it, starting from the main camp at 6300 ft. on July 12, during a preliminary reconnaissance of the Tsaya group. It and the Tur Pass reached last year are both convenient ways of crossing the ridge of the aiguilles between Tsaya and Kamuntao (Dunti). They both lead to the Karissart glacier from snow gullies (small 'glaciettes') on the Tsaya side.

A party of *tur* seen here. Left Tsaya Forest Camp 3.15 A.M. Arr. col. 2.55 P.M.

KARAGOM KHOKH (14,805 ft.).—This is the second or third highest peak in the whole group. The name is also applied to the fine peak of Burdjula (20,42 S. = 14,294 ft.). It would be preferable, however, to allow the last named to retain its southern, Asiatic, name of Burdjula and transfer its northern or European designation to the magnificent unnamed peak which is triangulated in the Russian 1 Verst map 2115 S. = 14,805 ft. On Freshfield's map this range is styled Karagom. It is situated immediately E. of the enormous (4000 ft.) icefalls of the Karagom glacier. On Merzbacher's map it is called Skatikom (unascended), but that map is quite as inaccurate here as in the rest of the group. Skatikom is the fine peak lying about 4-5 versts S.E. of E. Karagom, and near the E. extremity of the Karagom névé.

The northern wall of the great névé of Karagom is composed of four mountains: Karagoms (2) West and East, Vologata (new name proposed), and Skatikom. The watershed then swings S. to join the Tsaya spur in Songuta.

VOLOGATA (13,700 ft. about).—The name is proposed for the fine rock peak lying between Karagom East, = 14,805 ft. (Russ. 1 Verst), and Skatikom = 14,602 ft. (Russ. 1 Verst). The glacier flowing from its névés on the N. is called by the natives Vologata. The same party ascended Vologata and Karagom main peak (E.) on July 28, 1914.

High camp was left at 1.15 A.M. It was placed on grass at 9000 ft. on the N. side of the small N. Karagom glacier which joins the main stream just below the upper icefall. This N. Karagom glacier has evidently much receded of late and has enormous moraines on its r. or north. The moraines were ascended, and the ridge (Sandur) running N. from Vologata-Karagom gained up steep scree and finally snow, ice, and rocks, loose but not difficult, 7.30 A.M. 12,050 ft. After building a cairn on the ridge its narrow arête was followed to the steep slopes leading up to the main ridge.

Snow here soft and rather inclined to avalanche. No serious difficulty, however, was experienced in finding a way through a small hanging glacier, and up an easy snow-and-rock arête to the main ridge, 9.40 A.M. From here the party turned left (E.) and after an interesting climb on a narrow and pinnacled snow-and-rock arête reached the summit of Vologata at 11.20.

Retracing the route as far as the junction of the N. ridge with the main mass, the lowest dip, about 12,700 ft., between Vologata and Karagom, was reached at 1 P.M. Snow soft and bad. Thence a very steep climb, mainly up snow on a corniced edge, led to the summit (rocks) of Karagom at 4.45 P.M.

Progress was slow, owing to the great care necessary in dealing with the cornice and to the bad condition of the snow. Leaving the summit, which commands magnificent views of the whole Karagom basin and of the Central Caucasus from Kasbek to Shkara and Dych Tau, at 5.15, the route of ascent was retraced. The tents were not regained till 10.40. The slow going was caused by the extremely trying and exhausting state of the snow, probably aided by a threatened storm, which, however, gave perhaps the most impressive and magnificent sunset ever seen by any of the Expedition.

Laboda Group.

LABODA (14,170 ft.).—The same party made on August 1, 1914, the first ascent of the highest summit of this group. The group is situated on the S. side of the Shtulu pass, between Digoria and Balkaria.

Leaving the Cossack post or 'karaul' at the foot of the Godi pass (Stir-Digor to Gebi) on the afternoon of July 31, they ascended the gorge of the Tana torrent past the wooded heights of Kubus.

Tents were pitched—on moraine—about 8100 ft., just N. of the ice-falls of the wide Tana glacier which pours off Tsitelli and Laboda.

Leaving the camp 3.45 A.M. on August 1, the party kept N.W. up a long hollow, partly filled with scree, partly with ice. On the left were the ice and partly exposed rock-cliffs of the Tana glacier. This glacier has evidently very much receded of recent years. At the top of the hollow a traverse to left (S.W.) placed them on the glacier above its steepest and most broken part.

They were fortunate in finding without serious delay a good route through a series of very deep crevasses, bridges often long and not too substantial. Higher up the glacier became easier. 7.50, 11,000 ft. The steep E. ridge of Laboda was then attacked and followed to the summit, a high, steep cornice of snow, at 12.45 P.M. The ridge was mainly of rock in the highest part, and gave some interesting climbing. Owing to mist, only partial views were obtained.

Tsitelli, to the S.E., the peak ascended by Messrs. Dent and Woolley with K. Maurer and S. Moor on August 1, 1895, was mostly covered with mist.

In Mr. Freshfield's work 'The Exploration of the Caucasus,' p. 264, it might appear that Laboda is the peak said to have been ascended in 1895, but Mr. Dent's sketch map and description in the *ALPINE JOURNAL*, vol. xix. p. 397 *et seq.*, makes it clear that it was Tsitelli which his party climbed.

HAROLD RAEBURN.

VARIOUS EXPEDITIONS IN 1914.

Pennines.

LYSKAMM W. SUMMIT (4478 m. = 14,688 ft.) FROM THE N.W.—On July 31, with Joseph Pollinger and Franz Imboden, I climbed the N.W. face of the Lyskamm by the route first made by Christian Klucker with Mrs. Roberts Thomson ('A.J.' xxi. 266), and since repeated by Mr. Meade with the two Blancs ('A.J.' xxv. 85-86).

The weather on the night of July 30 at the Bétemps hut was very bad, first heavy rain, then several inches of snow. In the early morning it was not until about 3 A.M. that it looked better, and we got off at 3.45.

We crossed the glacier and without difficulty made our way up the Felikjoch icefall. Then we debated whether to go for the Lyskamm or Castor, as the new snow made conditions bad. The weather looked so good, however, that we decided to try the Lyskamm, as we had been looking forward to it for weeks.

We turned to our left and soon reached the first steep snow under the lower icefall. Cutting our way up this, we got under the higher and greater icefall, and, passing under this up steep snow, we arrived

at the bergschrund. Joseph, off Imboden's shoulders, managed with an effort to cut two steps on the very steep snow beyond, whereupon we followed. We then cut up very steep snow to the foot of the rocks. We hoped to have cut up the snow couloir on the right, but it was much too dangerous to touch, the new snow of the night before lying on ice and being very treacherous. We had therefore to keep to the rocks as much as possible. These rocks are not a true arête this year, but merely lumps of rock jutting at intervals out of the snow, very flat, smooth, and covered with ice and snow. They had to be very carefully handled, and the greatest care used on the snow between one lot and another. Handholds were very few, and the climbing was largely by balance and flat holds. Although we had 120 feet of rope out, it was not very often that anyone was 'safe' except for himself. Just before the arête the rocks ended in a sort of tower, of a very smooth slabby nature, covered with ice and snow. After a considerable time Joseph managed to balance up the lower portion, and then was forced to take to the bad snow in the very steep couloir on the right.

On reaching this tower one quite appreciated the care he had exhibited, as there were no handholds and one had to balance up most carefully. Joseph went very carefully up the bad snow to some rocks in the middle of the couloir about 70 feet from the arête where he took up Imboden, and I followed into the couloir. Then he advanced to where it was almost perpendicular below the small cornice. The rope being too short, we had both to advance a few steps. Joseph then managed to get his leg over the arête, but the snow was so bad that it would not bear Imboden's greater weight, and Joseph had to hold him tightly with the rope, and then they both had to hold the rope for me to come up hand over hand, for the last few steps had gone, leaving bare ice.

The arête was splendid, and extremely sharp and steep. We found, to our surprise, that it was 11 o'clock, so that we had been going for $7\frac{1}{4}$ hours.

In another quarter of an hour we were on easy snow, and sat down for the first halt and breakfast. After 25 minutes we went on up the easy steep snow and reached the W. summit at 12.30.

As we had traversed the arête last year, and it was now in very bad condition, full of new snow, we decided to descend by the Felikjoch. We found the snow very hard and had to cut our way down, taking over an hour to do what took us last year ten minutes. We got back to the hut at five, after a splendid day and delightful climb. The snow was bad all day, and sometimes dangerous. The cold on the N. exposure was very considerable, and we found on comparing notes afterwards that we all feared our toes would freeze. Mine were very painful for some time after we got a bit of shelter, and the others were the same. I appreciated the care I had taken to get easy boots in which I could move my toes, otherwise they would have suffered.

In an ordinary year this should be a very pleasant route. I gather from Mr. Meade that he had no trouble on the rocks, which were quite dry and easily climbed. This year, of course, one could hardly find a rock anywhere on a mountain. There was more snow everywhere than can be remembered, and even in the Dolomites I found six to eight feet of snow in places that usually were dry rocks.

R. W. LLOYD.

CASUALTIES AMONG MEMBERS OF THE A.C. IN THE BRITISH EXPEDITIONARY FORCE.

THE regrettable death in action of Major CORRY, D.S.O., is dealt with elsewhere in this number.

Captain E. L. STRUTT was unfortunately severely wounded on October 14 at Croix Barbée. When in temporary command of his battalion, the 2nd Royal Scots, he left his trench to report to his Divisional Commander Major-General Hubert Hamilton, whom he saw approaching. At that moment a bouquet of six shells burst low in quick succession over the party. The second killed the general, while another blew Captain Strutt several yards, rendering him unconscious and inflicting very severe contusions. For some days he was partly paralysed and stone deaf. He has been invalided home, and save for a troublesome lameness is making a good recovery, but he obviously had a very narrow escape.

Captain L. C. F. OPPENHEIM, H.L.I., was wounded near Ypres about November 10. He got a shrapnel bullet clean through his thigh, but fortunately no bones were broken and he is doing as well as possible.

ALPINE NOTES.

'BALL'S ALPINE GUIDE.' VOL. I. 'THE WESTERN ALPS.'—Copies of the new edition (1898) of this work, price 12s. net, can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART I.—A new edition (1907) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of A. V. Valentine-Richards, Fellow of Christ's College, Cambridge, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes those portions of Switzerland to the N. of the Rhône and Rhine valleys. Price 6s. 6d.

'BALL'S ALPINE GUIDE,' THE CENTRAL ALPS. PART II.—A new edition (1911) of this portion of 'The Alpine Guide,' by the late John Ball, F.R.S., President of the Alpine Club, reconstructed and revised on behalf of the Alpine Club under the general editorship of the Rev. George Broke, is now ready, and can be obtained from all booksellers, or from Messrs. Stanford, 12 Long Acre, W.C. It includes 'those Alpine portions of Switzerland, Italy, and Austria, which lie S. and E. of the Rhône and Rhine, S. of the Arlberg, and W. of the Adige.' Price 7s. 6d.

THE ASSOCIATION OF BRITISH MEMBERS OF THE S.A.C. has started a Swiss Guides' Relief Fund. The amount received to date (November 12) is £110. Subscriptions should be sent to the Hon. Treasurer, J. A. B. Bruce, Selborne Lodge, Guildford.

LE SIRAC.—Dr. Coolidge, whose knowledge of the Dauphiné, as of nearly every part of the Alps, is of course unrivalled, has sent to the Editor the following remarks with reference to the discussion on p. 354:—

'In "A.J." viii. I stated quite clearly on p. 332 that in 1877 we went *down* the *entire* snow couloir to the glacier after descending the first steep rock bit in it—see too my article in "C.A.F. Ann.," 1877, p. 275.

'In 1885 I went *up and down* the *entire* couloir ("S.T.D." 1885, p. 105-6; see in general my monograph in "R.A.D." viii. pp. 135-6).

'As after 1877 people complained that this couloir itself was very hard, I inserted the words "or the rocks of its left bank," in the first edition (1887) of my "Guide du Haut Dauphiné."

'On neither of my ascents did I take to the rocks on either side of the couloir (see my marked route in "L.M." vii. p. 718 and "R.A.D." viii. p. 131).

'If you look at No. 226 of Holmes' photographs you will see that the snow couloir does *not quite reach* the great S.W. arête of the mountain. Hence near the top of the couloir you *must* climb up a steep bit of rock. This is what I said in "A.J." viii. p. 332, where I state that on the descent (the ascent of the peak was made by a totally different route) we took 20 min. from the notch in the main S.W. arête to the glacier. This *descent* of mine only is mentioned in "A.J." so that Mr. Hope's statement is incorrect.

'In 1885 we found far less snow in the couloir than in 1877, so we held more to the rocks of the left bank of the couloir, taking much longer (even on the descent) than in 1877. But my 1885 ascent has never been mentioned in "A.J." It is, however, the source of my statement in my 1887 book. Later parties have found the couloir very difficult.'

DR. COOLIDGE also points out, in reference to 'A.J.' xxviii. 334, that it was the *Roche de la Muzelle* to *Valsenestre* that was crossed by Père Gaspard.

EBNEFLUHJOCH.—Dr. Coolidge is good enough to point out that Mr. Philpott crossed the Col and not the Ebnefluh itself, as stated on p. 335. The Col has not since been crossed (cf. 'The Bernese Oberland,' vol. i. pt. i. 82-5).

THE COL DES CRISTAUX ('A.J.' xxviii. 333-4).—Dr. Coolidge has written to express the opinion that the first *complete passage* of this col is to be ascribed to Mr. Withers's party, inasmuch as M. Fontaine and his guides did not make the descent to the Argentière Glacier *from the exact point* reached from the Talèfre side, but first followed the main arête for a bit. The question can be further studied in 'Mont Blanc Führer,' p. 152; 'Guide de la Chaîne du Mont Blanc' (1914 edition), pp. 104-5, in which very full references are given; and in M. Fontaine's article in 'Echo des Alpes,' 1911, pp. 299 *seq.*

Mr. Withers writes:—"I have refreshed my memory and I think the statement in the new edition of Kurz is fair and right to all parties. Of course I had no idea, nor had any of the numerous people I applied to for information at the time any idea, when I wrote the article in the ALPINE JOURNAL, that anyone had been on the ridge at that particular point or down the buttress. So far as I knew M. Fontaine had never claimed the traverse of the Pass as his."

NEW HUT NEAR THE ALLÉE BLANCHE.—Mr. Ruthven W. Stuart writes that Signor Gamba has again put mountaineers under obligation by building a hut on the small col to the N.W. of the Pyramides Calcaires. This hut will be very useful for the splendid, but very much neglected, western end of the Mont Blanc chain, comprising such peaks as the Aiguilles des Glaciers and de Trélatête.

NOTES ON THE CAUCASUS.

CAUCASIAN PLACE-NAMES.—Mr. D. Freshfield sends the following note:

'As President of the Royal Geographical Society I desire to call your attention to the method—or rather the want of method—in dealing with the choice and spelling of place-names in the Caucasus, which has been apparent in the pages of the ALPINE JOURNAL of recent years.

'The normal and proper course in the case of all foreign place-names when used in English literature is to accept the name adopted on the Government Surveys of the country in question, and in Russia to use the spelling consistent with the system of transliteration laid down by the Council of the R.G.S. This system is followed by the Departments of His Majesty's Government and in many other quarters, and may fairly be called official.

'In the Caucasus, however, as I pointed out in 1896, in the preface to my "Exploration of the Caucasus," place-names originally Turkish, or Georgian, have in some instances been put by the Russian surveyors into Russian forms, which, when transliterated according to our system, produce results very far from the original, and either unpronounceable, or certain to be unrecognisable to the people of the district when pronounced.

'But the admitted existence of these exceptions in the case of the Caucasus is no reason for the systematic neglect of the rule.

'Again, there is no excuse for the prevalent substitution in English works of a German system of transliteration for that in use in this country, which has become too noticeable in the articles of some of your contributors. I trust this may now be put an end to.'

THE EXPLORATION OF THE ADAI KHOKH GROUP.—Mr. Harold Raeburn will read a paper on the recent exploration of the Adai Khokh group before the Royal Geographical Society at the theatre in Burlington Gardens on Monday, January 11. Members of the Alpine Club who may wish to attend will be supplied with tickets on application to the Chief Clerk R.G.S., Lowther Lodge, Kensington Gore, S.W.

THE MOUNTAINS OF THE ADYR AND ADYL VALLEYS.—Herren Karl Egger and G. Miescher of Bâle had a successful three weeks' campaign in this district and made several new ascents. They also ascended Elbruz on ski. Just as they leaving for Suanetia they got the news of the outbreak of war and so were compelled to return, which they managed to do by Constantinople and Athens. They were unfortunately compelled to abandon their photographs, which included some interesting new ones.

HIMALAYAN NOTES.

THE HEIGHT OF THE PEAKS OF THE NUN KUN MASSIF.—In 1911 the Indian Survey made a new triangulation of Kun and Pinnacle peaks in the Nun Kun Massif. So far as I know, no mention of these later measurements has been recorded in the *ALPINE JOURNAL*. Both peaks were apparently observed from three stations, and the height above sea-level up to date fixed by the Survey is, for Kun 23,219 ft., and for Pinnacle peak 22,742 ft., the values for both being somewhat under those previously given for them by the Indian Survey.

My opinion *re* Pinnacle peak, of which I made the first ascent, is stated in our 'Peaks and Glaciers of Nun Kun,' which I here quote: 'After a careful study of the central peaks of the massif

from points without it and from the high plateau, this peak was judged by all members of the expedition to be the second highest of the group. Calculation from the reading of the boiling-point thermometer compared with a simultaneous reading at the lower station of Dras gives its altitude as 23,253 ft. On levelling off from a point just below the top on to the peak next west, fixed by the Indian Survey at 23,269 ft., the latter peak appeared to be somewhat lower, seemingly about 50 ft. Hence the height of Pinnacle peak has been placed at 23,300 ft.'

The latest Survey measurement, however, as stated above, makes the height of this peak considerably less than that obtained by the best means at my disposal, and for which I claimed no greater accuracy than does any other serious-minded explorer for his hypsometric observations, which may be in excess of trigonometrical ones, particularly when taken from a great and weather-exposed height. There is also a possibility that my figure may have been increased by error in the lower reading taken at Dras. My observations may exemplify the statement made by the Indian Survey that hypsometrical heights taken by them have been found to be as much as 600 ft. in excess at trigonometrical stations.

FANNY BULLOCK WORKMAN.

THE KARAKORAM EXPEDITION.—The following telegram has been received in Rome from Dr. Filippo di Filippi's scientific expedition to the Karakoram and the Western Himalaya :—'Camp at Depsang, August 15 (*via* Leh, August 24) :—The expedition, having completed its work south of the Karakoram, crosses into Chinese Turkestan. The exploration of the Remo glacier has revealed a glacier basin of unexpected importance and size and of very singular features. The adjacent portion of the Karakoram watershed is fundamentally different from the present maps. All well.'

NEW ZEALAND NOTES.

THE following interesting letter has been received from our colleague, Mr. G. E. Mannering :—

The Union Bank of Australia, Ltd.,

Napier, N.Z.

July 31, 1914.

DEAR CAPTAIN FARRAR,—'I was glad to receive your note on June 22 and to know the press cuttings regarding the accident on Mt. Cook came in useful for the Journal.

'I do not think the *Linda Route* will be thrown up. It has been used many times now, and, as a rule, is comparatively safe in cold

weather and in the early season. Late in the season, when the Linda begins to break up, the avalanches do come away freely, and in warm N.W. weather, especially, such is the case.

'Teichelmann's climb was by Zurbriggen's route almost entirely, except that his party kept longer to the snow slopes before reaching the crest of the N.E. arête. The objection to this route is the long steep snow grind from plateau to arête.

'The route by the small dotted line (p. 228) across the face of the ice of the summit was first done by Miss Du Faur with P. Graham and Thomson, coming down.

'In 1890 Dixon and I climbed Green's route as marked, except for a diversion to the rocks on left, half-way up the Linda, and, after leaving the rocks on right of top couloir, we followed the line on the face as marked as far as the level of the cross now marked by Mr. Green. (See *N.Z. Alpine Journal*, May 1895, and "With Axe and Rope, &c.," p. 100.)

'The traverse from Green's ledge to the N.E. arête was first done by H. C. Chambers and H. F. Wright with Jack Clarke and J. P. Murphy as guides on February 25, 1912.

'You will be pleased to hear that the N.Z. Alpine Club is under way again and expecting soon to start re-publishing a Journal. There is an enormous amount of material available.

'One of the first publications is to contain a list of peaks, passes, altitudes, and climbs, with a short description of routes, &c., compiled by Mr. H. Otto Frind of the Alpine Club of Canada who spent the whole of the last climbing season in New Zealand, in the Mt. Cook district. He has put a lot of hard work into it, and the list is quite a formidable one of some thirty pages of typed foolscap.

'It is cheering to know the Home Club takes so much interest in our mountains. Some day I hope to write more about them—I have thirty years' notes and twenty years' photos.

'With kind regards,

'Yours very sincerely,

(Signed) 'G. E. MANNERING.'

REVIEWS.

The Wilds of Maoriland. By Dr. J. M. Bell. Macmillan & Co. London: 1914.

DR. BELL was Director of the New Zealand Geological Survey for six years. His work was mainly in connexion with the auriferous districts, and the first part of his book is a very interesting account of some of the wilder parts of the North Island, in which there is a chapter dealing with the snow-clad volcanoes of the Hot Lakes. But, fortunately for climbers and for the author, there is a good

deal of alluvial gold on the W. side of the Southern Alps, and the quest for the parent reefs led him up into the Alps. The second part of the book describes some of his experiences. After an enthusiastic account of the Hermitage and the Canterbury glaciers there is a description of a crossing of the Copland to the W. coast; the Franz Josef Glacier was surveyed, and an excellent map published as a result, in the Report of 1910; intending climbers may well regret that this map is not reproduced in this book. Chapter viii. describes the Douglas Glacier, of which the only other account is in Harper's 'Pioneer Work in the New Zealand Alps.' The Douglas lies at the head of the Twain river and descends from the W. face of Mt. Sefton; but the Twain runs through an impassable gorge, and the Douglas can only be reached from the W. by a long ascent up the Karangarua river and then by a pass into the Douglas, but the descriptions of the few people who have seen the Douglas agree that it is one of the most remarkable sights they have seen. 'The glacier consists of two parts—the névé and the trunk; between them lies a precipice over 3000 ft. in height, exhibiting in the upper half an icefall of wonderful magnificence, and in its lower half an almost vertical face of rock extending for nearly three miles. The roar of the avalanches constantly descending formed an unending cannonade, the booming of one having hardly ceased when that of another had commenced.'

Wet weather set in, and after several days of starvation rations an attempt was made to force a pass over to the Hermitage, but there had been no opportunity of seeing the peaks, and the wrong glacier was climbed, and the party found their pass led into the Dobson river instead of on to the Mueller Glacier, so there was nothing for it but to descend the Karangarua again. After being 'stuck up' by a flood in the river, at last they reached a house, almost exhausted.

The last chapter deals with the geography and climate of New Zealand. The book is most interesting, though the author implies a certain knowledge of geological terms; a glossary would have been helpful to most readers, more especially for the Maori names of trees and birds. There is a slight slip on p. 162. Mt. Cook leaves the Island Divide from Mt. Hector (Dampier), not from David's Dome (Hicks). There is a reprint of a map of the Mt. Cook district, which is accurate enough in the main, but details cannot be trusted. Scott's house is still shown on an island on the Karangarua; fourteen years ago a party descending the Copland without food searched every possible island for hours, and only found out by accident that it is now washed away and rebuilt about three miles inland.

The book is well supplied with illustrations; the alpine ones would have been more interesting to those who do not know New Zealand if the peaks had been more clearly named above the illustrations. There are eight coloured illustrations, several of which are very effective.

The book is one that anyone intending to visit New Zealand

should read, and it may perhaps fire many with a desire to climb in those Southern Alps where the beauties of Switzerland rise out of a semi-tropical forest and are bounded by a view of the Pacific Ocean, though Dr. Bell's book will show that it means a good deal of rough work.

Unto the Hills. By Douglas W. Freshfield. London: Edward Arnold. 1914.

ALTHOUGH the members of the Alpine Club have, for their numbers, produced a great deal of literature, they have not been able to boast of many poets. All the more welcome, therefore, is the discovery that we have had among us in the person of one of the Old Guard of the Club, who has won high distinction as an explorer no less than in feats of mountain climbing, a true poet, whose highest gift has only now been disclosed to those of us who had long recognised his knowledge of and his taste in literature. Mr. Freshfield's little volume is apparently the fruit of many years, for some of its contents date back to 1870. In point of form it is highly finished, with an easy mastery of several forms of verse, as well as a choice and happy diction. But what specially strikes the reader in comparing it with the work of some of the best of our younger poets is that it has substance as well as form. Nearly all of those just referred to spend themselves upon workmanship. They give us recondite words, delicately chiselled phrases, deftly finished turns of expression. But sometimes little is expressed, and though we admire the skill displayed we carry little away. Mr. Freshfield, however, realises that poetry was meant to convey solid ideas and to embody some definite emotion. In his verse there is always a thought to strike the mind as well as a rhythm to please the ear. The poetry is poetry of reflection more than of description pure and simple, and reflection in the vein rather of the nineteenth century, as we find it in Wordsworth, Tennyson, Clough, and Matthew Arnold, than of the eighteenth-century moralisers, seen at their best in Gray. The reflections are inspired by history as well as by nature—witness the fine lines written in the palace of the Caesars on the Palatine, and those entitled 'In St. Peter's'—1870–1880. But it is most often nature that inspires his muse, and it is on the poems relating to nature, and especially to mountain nature, that a reader of the *ALPINE JOURNAL* will most gladly linger, for they show an intimate feeling for the landscapes of the heights, and a sensitiveness to the emotions which those landscapes are fitted to inspire. A good example is found in the poem entitled 'The Song of the Himalayan Fairies,' and an even better one in that called 'View and Vision,' where the writer looks down over the lofty and secluded valleys of Caucasian Suanetia, the home of that strange old race whom Procopius calls the Soanes, beneath the shadow of the gigantic Ushba. Just as artists usually prefer to paint a woodland glen or a stream foaming among rocks rather than a panoramic view,

so poets have comparatively seldom tried to render the impressions given by a prospect from a great height over distant lands. We can remember no instance in which those impressions have been rendered more broadly and at the same time more delicately than in this poem. It is not, however, only the Himalayas or the Alps, or the Caucasus, that furnish themes in which the author's perception of the distinctive charm of wild nature reveals itself. The same is equally seen in the verses written in the Roman Campagna, in those on Exmoor, called '*O Dea Certe*' and '*De Profundis*,' and in the very pretty little piece ('*Rusticus expectat*') which conveys the special sweetness and grace of Sussex scenery.

In another way also the reader feels through the little volume its author's love of the hills. Several pieces commemorate famous guides in the Alps, some of them his own chosen companions, such as François Dévouassoud, Michel Conttet, and Jean Baptiste Croz. And two poems, short, but perfect in feeling and expression, are dedicated to the memory of one of the boldest climbers and best beloved among the departed members of the Alpine Club, W. F. Donkin, who perished in the Caucasus, as we all too well remember. One of these poems is also rendered in Latin (as are three others in the volume), and that with a felicity which may excite admiration when found in a writer whose Etonian days lie so far behind.

There is in the volume much else besides the pieces we have noted to give real pleasure to the lover of poetry. There are poems in which we feel the rich sunlight of Italian life, and others in a lighter vein, full of grace and seasoned with humour. The reader, when he reaches the end, will be disposed to wonder that one who possessed so genuine a gift should have so long concealed it from his friends and the public, and if he has any censure for the book it will be the rare complaint that it is too short, for there is nothing in it which we are not glad to have.

Kulu and Lahoul. Col. the Hon. C. G. Bruce. Messrs. Edward Arnold.

COLONEL BRUCE's new volume on the '*Himalaya of Kulu and Lahoul*' is almost the first to treat the great ranges of Asia in the alpine manner; and this both in literary style and in the character of the mountain excursions. Carefully choosing a region destitute of peaks of the first magnitude he and his companions cast themselves loose amongst the Hills without any defined programme, except to tackle any mountain that took their fancy.

In the Polar regions the two ultimate goals have been reached. Now, says the modern scientific explorer, we are free to investigate the country! In the Himalaya our goal is still at an unsatisfactory distance, but there are not wanting signs that the rising generation of mountaineers, at least in India, is quite capable of placing holiday delights before the pursuit of records. The more ambitious be the scheme of an Himalayan expedition, the fewer days can be spent actually climbing, and *vice versa*.

The districts dealt with are full of fascination, and Colonel Bruce's party, as he says, has merely skimmed it. There is certainly no better field for the man who wants much climbing regardless of the actual height of the peaks gained. And further, owing to the more moderate scale on which these peaks are built, far more difficult climbs may be attempted with reasonable hope of success than on peaks of the first magnitude. But despite all these advantages this volume is the first to deal with the district from the point of view of the mountaineer, and should be most carefully digested by anyone else intending to go there. Though the book does not pretend to deal with serious exploration but rather with a prolonged alpine tour, it is crammed with most valuable hints and suggestions of travel.

Amongst other things the particularly vindictive character of one of the local deities is unfolded to us, and, for a warning, the sufferings which the author brought on himself (though these are made light of) by not sacrificing in the orthodox manner! To this omission is due the fact that most of the climbing was done by Captain Todd and Führer.

The best climb was obviously Maiwa Kundinoo, but in some respects the chapter on the Parvattiya Nullah is the most attractive in the book. A fine description of the Kringcha mountains towering nearly 8000 feet almost sheer above the river bank gives a vivid idea of the profound depth and steepness of many Himalayan valleys. Probably the scenery hereabouts can hardly be surpassed even in Garhwal.

Colonel Bruce comes out frankly in favour of the Alpine guide for Himalayan work. Necessarily a careful choice must be made. But a good guide will undoubtedly save time on the peaks, and it is time which is here so very valuable. Constantly one is so placed that a peak must be climbed on one particular day, and the loss of even a few hours cannot be balanced by a fresh attack on the following day, as in the Alps.

The book concludes with a charming chapter by Mrs. Bruce, an account of travel and camping in the Hills from a lady's point of view, which emphasises the fascination of this part of the Himalaya. But while it is true that a lady can travel quite well in Kulu, it must be remembered that Mrs. Bruce is an exceptionally experienced traveller, and that the novice might not surmount the daily incidents and accidents of travel with quite the same facility. Still, unless we have already decided to take our wives with us, we had better keep these pages out of their sight!

Den Norske Turist Forening's Aarbok for 1914.

YET once again the editor of the 'Aarbok' is to be congratulated on his publication of the current year. Though there are no accounts of thrilling mountain adventures, the interest is fully sustained

throughout. The variety of the subjects of the papers is greater than usual, and they all deal with mountains, in one form or another. Glaciers have attracted more attention than has been the case during recent years, and new districts have been added to the long list from which the tourist can make a selection for his summer holidays.

Dr. Yngvar Nielsen, the veteran tourist pioneer, whose name is a household word throughout the whole of his native country, has contributed a most interesting obituary notice on an equally interesting character, Ole Halvorssøn Røisheim. The farm Røisheim—it is spelt in various ways—from which Ole took his name is situated at the foot of Galdhøpiggen, which was for many years the highest mountain in Norway, and is also the nearest farmhouse to Glitretind, which was 'for many years' the second highest mountain. Owing to the fact that during recent years the snow dome of Glitretind has increased enormously in depth, this mountain is now 10 mètres higher than its rival, and is, consequently, 'the culminating point of Scandinavia,' an honour wrongly attributed in atlases of the early nineteenth century to Skagastølstind. The present writer suggested many years ago the likelihood of Glitretind usurping the place of Galdhøpiggen, as the summit of the latter consists of a relatively narrow rock-ridge with three precipitous sides, and that of Glitretind is much broader. Røisheim, which I first visited forty-two years ago, had been for many years previously, and was for many years later, the principal mountain centre in Norway, and Ole was the leading mountain guide in Norway. This statement may be challenged by the bold and young mountaineers of to-day, but it is true nevertheless. Ole never climbed many mountains, nor for that matter did anyone else in the 'sixties and early 'seventies of last century. Indeed Galdhøpiggen and the Gausta Fjeld were almost the only mountains the ascent of which attracted the attention of mountain-lovers of that period.

Ole, however, paved the way for others to climb. He guided tourists innumerable through pathless mountain valleys, carrying their baggage on his hardy pack-horses, and with the aid of these horses he and his charges crossed the bridgeless glacier rivers. For many years he was the best-known man in the Jotun Fjelde.

All who knew Røisheim well in the 'seventies, as I did, have many happy memories connected with Ole and his strong but storm-battered old wooden house. What a marvellous rendezvous this old house—the Northern Gate of Jotunheim—was few can now imagine.

Ole was a remarkable man, well read, with a dry humour, and full of interesting anecdotes connected with the wild Norsk mountains. His type was that which we associate with Viking days, and 'he held fast to the customs which he knew in his youth.' He was born in 1827, and was called to his long rest in 1913.

As fitting accompaniments are a poem on Lake Gjende by Oddmund Ijone and two papers relating to Jotunheim in early

days.* That by Dr. G. K. Halvorsen gives us the derivation of many names over which we have often puzzled in vain.

Papers on Sætersdal, Hardanger Vidde, and Hemsedal, beautifully illustrated, show how easy it is nowadays to reach the high fjeld by the Bergen and Christiania railway. The view of Bjøberg, probably the most exposed posting station in Norway, recalls to the present writer the hearty welcome which he received in the winter of 1880 after a sledge drive over the Fille Fjeld with the postman in a snow blizzard. Never were there kinder-hearted people than those hardy Norse folk of Bjøberg.

A paper by Thoralf Vogt describes a geological expedition north of Narvik and the Ofoten Fjord, and reveals the fact by illustrations that the Skiddendalstinder and their glaciers are not so grand as some of us have expected them to be from a close study of the Amtskært.

Herr P. A. Øyen gives a description and an excellent illustration of the ice grotto on the right bank of the Riingsbræ, that evasive natural phenomenon which some of us have known for many years by repute, have sought for it several times, but always in vain, in vain merely because there has been too much snow. It is much like the tunnel which formerly existed, and may probably still exist, through an ice-tongue below the Arolla Glacier.

From a mountaineering and glacier-exploratory point of view the most interesting paper is one 'Fra Tindekjeld til Lodalskaupa,' which describes an adventurous and a long glacier expedition undertaken by two first-rate mountaineers, H. Tönsberg and O. Bjerknes, with Elias Hogrenning, a local guide of great experience. After bivouacking some 4000 ft. above Lake Stryn, they were up betimes and soon encountered successfully the difficulties of a steep glacier which guards the approach to the serrated Tinde Fjeld. They were now on the northern arm of the great Justedalsbræ, which overlooks Lake Stryn on the one side, and Lake Loen, that wondrous lake so well known, at least by name, to tens of thousands of skurrying tourists who take the little steamer up to the head of a lake the beauties of which may possibly be rivalled but cannot be surpassed elsewhere.

This portion of the largest snowfield in Europe has been very seldom visited. The writer has once only traversed a portion of it. Until Tönsberg and Bjerknes made the expedition described in their paper, so far as is known, no one ever crossed from the Tinde Fjeld along the rolling snowfield to Lodalskaupa.

By aid of considerable experience and knowledge of snowcraft, and with the use of their ice-axes, this party succeeded in the accomplishment of their plan, and after passing under the savage

* Hr. Carl Lundh's contribution is headed by an excellent reproduction of an early sketch of the Horungtinder from the S., the most impressive side, taken from the top of Koldedal. Both of these papers are of much interest.

northern face of Lodalskaupa they descended those grand ice-falls on the E., finally reaching the Faaberg sæter near the foot of the Lodalskaupe bræ at 12.30 A.M. the following day. A fine piece of glacier exploration, by which the Justedalsbræ has probably yielded up her last secret. It is most refreshing to know that these good mountaineers and first-rate rock-climbers have turned their attention for a time from the fascinations of pure rock-climbing to the higher branch of mountaineering which calls forth their snowcraft.

The Fjellmannalag or Mountaineering Club of Bergen takes yearly a goodly company of its members, both male and female, on some expedition amongst the high mountains of the Province of Bergen. The initiator of this custom is Herr K. Bing, a Bergen barrister, and very great credit is due to him. A bold mountaineer, Bing has done very much to create and foster amongst his countrymen the true love of mountains, and by dint of wise forethought and excellent arrangements, the Club has been able to undertake successfully many expeditions amongst some of the finest glacier scenery in Europe.

The paper contributed by Halfdan Eide describes one of these adventurous tours of seven or eight days in July 1913, which was undertaken, according to the photographs on pp. 59 and 61, by three ladies and five men. Entering the grand glacier region at Fjærland, they passed the Suphelle Glacier, where avalanches can almost invariably be seen. However, they will not fall to order, even an order given peremptorily by Kaiser Wilhelm II. When he first saw the glacier and no avalanche fell down from the high upper glacier the Imperial wrath was great. In order somewhat to appease His Imperial Highness a Norseman was sent up the mountain-side with a crowbar, and with orders to heave over something big, either ice or rock—something which would make a noise. He was a stalwart fellow and prized over a goodly lump of gneiss, and in consequence the suite of the Kaiser breathed freely once again.

To the Fjellmannalag again. They crossed through a lovely gap in the mountains to another valley headed by two main valleys in which are grand glaciers—the Langedal and Austerdal. The ice-falls in these two valleys are some of the wildest in the country. Especially is this the case with the three chaotic ice-falls which, united, form the superb Austerdalsbræ. These three glaciers are not visible from the foot of the Austerdalsbræ, which latter 'possesses a beautiful curve by which the head of the lower and flattish glacier is entirely hidden from the foot, and, thanks to this curve, the magnificent scenery at the head of the Austerdalsbræ' was still virtually a *terra incognita* until it was discovered in the year 1889 by three friends and myself.*

As a result of this discovery, I gave a name, a truly Scandinavian one too, to each of the three glaciers, which, when united, form the

* Norway, the Northern Playground, p. 279.

great Austerdalsbræ. These names subsequently appeared in a map which accompanied a paper which I wrote for the N.T.F. 'Aarbok' for 1890.

Apparently the Bergens Fjellmannalag has adopted other names? They too are truly Scandinavian, but whether they are more suitable than those which I chose or not matters little. In this case priority and the fact that the names have appeared in the 'Aarbok' of the N.T.F. must decide on the adoption of the names first chosen, and first used in print.

The party crossed a great hog-backed mountain from which on either hand is a superb view. They descended to another grand glacier scene, the foot of the Tunsbergdalsbræ. This much resembles the Aletsch Glacier above the Marjelen See, and is fairly flat for eight or nine miles. The party, unfortunately, had not time to ascend this and to descend to the valley of Justedal by a low col near the head. In spite of this omission they made an exceptionally grand and a highly successful little tour.

Herr John Oxaal takes his readers in thought to the glaciers of Svartisen and the caverns in Rödvasdal. The caves, Grönligrøtten, have been known for generations, but explorers were always stopped by a subterranean stream which falls, in quite the orthodox fashion, down a pot-hole. This critical point was turned in 1881, and an iron railing now enables visitors to cross round the head of the pot-hole and to find safety in the Great Church, 'Stor Kirken,' as he ought naturally to do. I hardly imagine that it would pay 'the Yorkshire Ramblers' Club' to send an expedition to make further explorations in these caves which are just within the Arctic Circle.

The Turist Forening is now a great National Institution, and is yearly opening out new districts of noble scenery by the building of bridges, improvement of roads, and the establishment of tourist huts in places where there is little or no accommodation and where the number of tourists justifies the expense incurred.

WM. CECIL SLINGSBY.

INDEX

Vol. XXVIII. Nos. 203-206

INDEX.

ABB

- ABBOTT**, Mount, Exploration of, 10
Abo-Toze Pass, 163
Abrids, 373
Accidents (*see also* **Alpine Accidents**), on Aiguille de la Persévérance, 73; Breva face of Mont Blanc, 303; Col Chamonin, 400; Mont Rouge de Peutret, 4; Mount Cook, 222; N. ridge of Mandiwand, 51; Vertatscha, 79
Acland, Mount, first ascent, and traverse of, 315
Adai Khokh, 133; ascent of, and night on, 134
 Name of, discussed, 90
 True, see **Vilpata**
Glacier, 87
Adai Khokh, or Tsaya Group, expeditions in, 86, 410
Adai-Songuta Pass, reached, but not crossed, 402
Adder, an, at Champoléon, 379
Adish, 140
Adyr and **Adyl** Valleys, Mountains of, ascents in, 410
Adzusa-gawa Valley, 160
Afanasieff's, 'Climbers' Guide to the Caucasus,' 210
Agassizjoch, ascent of, 335; crossing of, 271
Agüzza, Orast', first ascent of, by W. arête, 199
Aigle, Aiguille de l', 81
Aiguille, Mont, 331
 Ascents of,
 in 1462., 370
 in 1913., 372
 by N. face, 373
 Others, 371
 Climbing at and beyond, 369
 Flowers on, 371, list of, 373 & n.
 View of, 370
Aiguillette, the, 185
Ailama Peak, view of, 139
Akademischer Alpen-Club, Zurich, Committee of, 238
Albert, King of the Belgians, elected Honorary Member of Alpine Club, 5
Alcohol, mountaineers as affected by, 239-40
Altschhorn, the, first ascent of, by W.S.W. face, 9
Aleyat, Wady, 22
Allée Blanche, Chalets de l', 84

ALP

- Alpilles**, Les, photographs of, 311
Alpine Accidents, in 1913., 79, 222
 in 1914., 400
 Fatal, 2, 51, 79, 222, 256, 281, 231, 303, 336
Alpine Club :—
 Ball's Guide, see **Alpine Guide**, *below*
 Casualties among Members in the British Expeditionary Force, 407
 Deaths of Members, 3 *et seq.*, 120-2
 Elections of Honorary Members (1912), 5
 President and Officers, 125
 Exhibition of Photographs, 1914., 303, 350
 Journal, 11-12
 Corrigenda, 103, 237
 Increased price of, 12
 Library, 59, 207, 313, 398
 Members, Fatal Accidents to, 2
 'Old Guard' of, 3 *et seq.*
 Proceedings, 1, 120, 251, 349
 Obituary, 48, 49, 50, 95, 186, 194, 195, 197, 198, 231, 313, 332, 397
 Votes of Thanks for Papers, 123-4, 127-8, 255, 258, 260, 332, 354
 to Mr. Baker, 11
 Mr. Spencer, 11, 349-50
 Winter Dinner, 129
Alpine Club of Canada, Camps of (1913), 76, 335
Alpine Clubs, *see* **Akademischer**, **Austrian**, **Canadian**, **German**, **Italian**, **Swiss**
Alpine Fauna, 16, 20, 86, 87, 90, 92, 141, 185, 368, 369, 376, 379, 385, 390
Alpine Flora, 21, 47, 70, 78, 98, 168, 169, 170, 182-3, 185, 234, 254, 298, 300, 301, 302, 361, 371, 373 & n., 383, 393
Alpine Guides, *see* **Reviews of**, at pp. 118, 119
 Ball's, Central Alps, Parts I & II, 95, 231, 332, 407-8
 Western Alps, Vol. I, 95, 234, 332, 407
Alpine Plants of Europe, 70
Alpine Poetry, 414
Alps, ski expeditions in, 54
 Blanc, Mont, Group, expeditions in (1913), 81, 93;
 'Guide' to, 118; new huts in, 98

ATH

- Alps** (*cont.*) :—
 Bergamesque, compared with Japanese, 161, 163
 Bernese Oberland, expeditions in (1913), 86
 Dauphiné, expeditions in (1913), 80, 230
 Grisons, expeditions in, 401
 Italian, bouquetin in, 86
 Japanese, accessibility of, 164; compared with Bergamesque, 161, 163
 New Zealand, ascents in, 344-6; described, 253; glaciers in, 413
 Pennine, expeditions in (1913 & 1908), 85, 94, 231; (1914), 405; new 'Guide' to, 333
 Savoy, 'Guide' to, 119
 Alt Moschi (Kilimandjaro), hotel at, 97
 Amateur, the term, 56
 Amboina, 298
 Amphlett, George Thomas, death of, 258; obituary notice of, 197
 Anderegg, Jakob, Guide, 273 *et seq.*
 Anderson, Dr. Tempest, death of, 121
 Andrea Pass, 342, 343, 344, 383, 386, 388
 Androsace glacialis, at **Cogne**, 183
 Angier, 181
 Anglaise, Isolée, L', and Aiguille Blanche de Peutret, gap between reached, 81, 82
 Anglaises, Dames, *see* **Dames Anglaises**
 Annette, Mount, ascent of, 345
 Argentière, Aiguille d', traverso of, 166
 Arkle, R.N., death of, 252
 Arolla, Col de la Reuse d', ascent from, of N. summit of **La Sengla**, 38, 40, 41
 Arpisson, Tour d', 185
 Arpont, 147
 Art, Mountaineering in, books on, reviewed, 114-16
 Asama, Volcano, 164
 Association of British Members of S.A.C., **Swiss Guides' Relief Fund** started by, 408
 Aster alpinus, on **Dentav**, 185
 Athabasca Pass, 350, 358
 River, 358
 Valley, 350

AUB

- Auberts, Les, 379
 Aurochs, the, 105
 Austen, Colonel Godwin, elected Hon. Member of Alpine Club, 5
 Austerdal Glacier, 419
 Austerdalbrasse, ice falls forming, 419
 Austrian Alpine Club : accounts of, 235; huts of, 237; Mont Blanc 'Guide' of, 237; new 'Guide' by, reviewed, 118; new 'Guide' by, to the Pennine Alps, 337
 Avalanche, enormous, from Col du Géant, 237
 Avalanches of Stones, on Matterhorn, 286, 292
 Ushba, 92

BAILLIE-GROHMAN, W. A., book by, reviewed, 103

- Baker, Mr., vote of thanks to, 11
 Baksan River, 144
 Ball's Guide, see Alpine Guide
 Baitoro glacier, 339
 Baitchedierjoch, 305
 Bannie, Mount, first ascent of, 345
 Barada River, in the Lebanon, 96
 Barbasar Pass, crossing of (first by European), 110
 Barei Pass, crossing of, 110
 Basha Valley, 339
 Batavia, tidal wave at, 182
 Baths of Shirahone, 163
 Batok, 179
 Bell, Dr. J. M., book by, reviewed, 412
 Bellino Glen, 376
 Bérarde, La, 382
 Parc National de, 334
 Bergamesque Alps, compared with Japanese Alps, 161, 163
 Bernese Oberland, expeditions in (1913), 86
 Bernina, ascents of, 129, 130
 Betsho, or Gulskey, Pass, 336, 338
 Biafo Glacier, 339
 Blandong (Ladakh), 339
 Blesjoch, crossing of, 190
 Bietschhorn, first ascent of, from the Baitchedierthal, 305
 Descent of E. arête, 305
 Big Hell solfatara, 157
 Bilaphond Pass, and the name Saitoro, 340-1
 Bixelz, Tête, 168
 Bjöberg, 418
 Blanc, le Gréffier, 103
 Blanc, Mont, ascents of, alone, 192; by Brenva Route, 7; by Brouillard arête, 7; buttresses, 201, ridge, 199; from Chamonix, 256; from Col Emile Rey, &c., 7
 Brenva face of, 306, accident on, 309
 Brenva Route, ascent by, 7, descent by, 8; ice arête on, 306
 Descents of, by Brenva route, 8; by Glacier

BLA

- Blanc, Mont (*cont.*)—
 Descents of (*cont.*)—
 du Dôme, from Dôme du Goûter, 274
 Flight over, 95
 'Versante Italiano del,' by Mondini, 306
 Group or Chain of, 347, expeditions in (1913), 81, 93
 Guide-books on, 118, 237, 333
 New hut in, 98
 Swiss part, ascents in, 165 *et seq.*
 Petit, ascent of, by N.E. arête, 84
 du Tacul, 266
 Blanche Allée, new hut, near, 409
 Dent, ascent of, by W. face, 334; beauty of, 287; fatal accident on (1882), 284
 Traverse of, by new route, 8
 Tête, 39
 Blancien, the, 40
 Bondasca, Cima della (Pizzo del Ferro Centrale), first ascent of E. arête of, 9
 Bonneval-sur-Arc, 149
 Boot-nails, Tricouni, 238
 Borels en Champoléon, Les, 378
 Borneo, 297
 Bosco, François de, on the ascent of Mont Aiguille in 1462, 371
 Boss, Theophil., obituary notice of, 813
 Bossons Glacier, 266
 Botanical Garden, Sils, 98
 Bonquetin, dead, on Dentavru, 185; in the Italian Alps, 86; near Lauzon, 182
 Boval Inn or Hut, 236; reconstruction of, 97, 98
 Brahma Peaks, Pir Panjal Range, attempts on, 46-8
 Braldoh Valley, 339
 Brandy, 266
 Brenta, Crozzon di, ascent of N.E. face, 52
 Guglia di, E. summit face, ascent of, and first complete traverse of, 52-3
 Brenva, Aiguille de la, ascent of, 53
 Brenva face of Mont Blanc, 306
 Brenva route, ascent by, of Mont Blanc, 7; descent by, 8; ice arête, on, 306
 Brévent, the, 267
 Britannia Cabane, Dent monument, proposed, near, 58; 54 people in, 154
 Bromo, excursion to, 179; sand-sea on, 179; volcano, 178
 Brouillard Arête, ascent by, of Mont Blanc, 7
 Buttress, ascent of Mont Blanc by, 200
 Glacier, accident on, 281
 Ridge, Mont Blanc ascended by, 199
 Mont Rouge du, first ascent of, 200
 Brown, Belmore, book by, reviewed, 243

CHA

- Brown, Mount, 350, 352; ascent of, 363; elevation of, 358, 363; problem of, 365; view of, 364, 366
 Bruce, Col. the Hon. C. G., book by, reviewed, 415
 Bryce, Viscount, congratulations to, from the Alpine Club, 252
 Bubis Khokh, ascent of, 402
 Buin, Piz, first ascent of, 199
 Burdjula or Karagom Khokh, 403
 CADDICK, Alfred, death of, 349
 Calcaires, Pyramides, 84; hut near, 409
 Calotte, the, 266, 267; ascent of, 268; view from, 268
 Campanula Centista, at Cogne, 182
 Canadas, the, of, Tenerife, 179
 Canadian Alpine Club, camps of (1913), 76, 335
 Canoe Camp, Utakwa River, 299
 Canterbury Glacier, New Zealand, 413
 Capra Caucasica, see Tur
 Capucin, the, 119
 Carstensz, Mount, attempt on, 297; cliffs of, 302; 14,866 ft. reached on, 303; ice of, 301
 Carstenszoon or Carstensz, Jan, 297
 Casse, Grande, ascent of, 148
 Casteldelphino, accommodation at, 375-6; fireflies at, 376
 Castelponte, 375
 Casualties among Members of the Alpine Club, in the British Expeditionary Force, 407
 Casuarina trees, Dutch New Guinea, 301
 Cathedral Mount, 76
 Catinaccio, Sui, 242
 Catoire, Mont, traverse of, 168
 Caucasus, the, animal life in, 86, 87, 90, 92, 124, 133, 134, 141
 Climbing in, 10
 New Climbs, 131 *et seq.*
 Expeditions in (1913), 86, 100; (1914), 240, 336
 Guide to, Afanasiyeff's, 240
 Literature on, 64
 Mountain peaks of, 386-8
 Night at 13,000 ft., 141
 Notes on, 240, 335, 409-10
 Place-names of, 409-10
 Provisions in, 241
 Snow bog in, 90
 Adal Khokh Group, expeditions in, 86
 Central, new expeditions in (1914), 402
 Shkara Group, expeditions in, 91
 Ushba Group, expeditions in, 92
 Centipedes, in Sinai, 20
 Ceresole, 150
 Chabod, Joseph Maria, Guide, 263
 Chalaat Glacier, Western, 92, 140
 Chalanca, Col, 352
 Chalin, Couloir de, 112

CHA

Chambeyron, Aiguille de, new route on, 377
 Brec de, 364
 Chamoin, Fenêtre du, 172
 Chamonix, Col, accident on, 400
 Chamonix, ascent from, of Mont Blanc, 256
 Aiguilles Rouges de, accident on, 79
 Champéry, first ascent from, of the Haute Cime (Dent du Midi), 112
 Champex, Lake, 166
 Champoléon, 379, an adder at, 379
 Borels, Les, en, 378
 Chanchakhi, 122
 Chang La, 237, crossing of, 340
 Chapelle, La, 381
 Chardonnnet, Aiguille du, ascent of, 176-7
 Glacier, 177
 N. face of, 175
 'Charles the Rotter,' 146
 Charmoz, traverse of, 83
 Aiguilles de, 264
 Chiapera, Colletta di, traverse near, 376
 Chogo Lungma Glacier, 339
 Cime, Haute (Dent du Midi), first ascent of, from Champéry, 112
 Clapier, Col du, Hannibal and, 247
 Classical mountaineering, 116
 Clelles-Mens, 370
 Climbers' Guide to the Caucasus, by Afanasieff, 215
 Climbing, psychology of, 240
 Clot, Le, 354
 Valgaudemar, hut at, 381
 C.A.I., see Italian Alpine Club
 Club Huts in the Swiss Alps in Winter, 98
 Cockscorn, Mount, 302
 Cogne, Alpine Flora at, 182-3
 in 1913., 151, 182; squirrels near, 184
 Coleman, Professor, elected Hon. Member of Alpine Club, 5
 Collie, Mount, 355
 Columbia, Mount, 350
 Confinale, Monte, ascent of, by N. arête, 9
 Cook, Mount, accident on, 222, fatal, 256
 Ascent of, 345
 Routes up:—
 Linda Route, 345, 411-12
 Zurbriggen's Route, 344
 Cornet, Tyn y, 193
 Coropuna, ascent of, 324
 Corry, J. B., Major, killed in action, 407; obituary notice, 397
 Cortina, Mr. H. Wood and, 100
 Oessack Post, see Nicolai, S.
 Côte, Mur de la, 267; meeting of parties at foot of (1855), 268
 Courmayeur and District:
 Albergio Reale at, 272; in 1855., 261; weather of, 237; winter in, 95
 Courtes, Col des, 333
 Crast' Agtizza, Sattel, new hut on, 97
 Cresta-Avers, 401

CRE

Crevasse, on Mont Maudit, 267
 Crevasse Punta, 185
 Crevasses, in Canadian Rockies, treacherous, 236; near Grivoletta, large, 183; on Mer de Glace, sudden, 265; on Ober-Gabelhorn, huge, 277, disappearance in one, 281
 Cristaux, Col des, 333, 409
 Crosses, ancient, near snout of Ghergheli Glacier, 99-100
 Cullinan, Sir F. F., death of, 252; obituary notice of, 194
 Curtain, The, 87
 Cust, Sir Reginald, death of, 121-2
 Cypressess, in Sinai, 21
D
 DAMES Anglaises, 81
 Pointe Isolée of, first ascent of, 8
 Dante, as mountaineer, 116
 Darby, Mount, traverse of, by new route, 345
 Darrei, Grand and Petit, traverse of, 175
 Dauphin-Gullestre, Mont, 373
 Dauphiné, Alps of, expeditions in (1913), 80, 230
 Dent, Clinton, Memorial to, 58
 Dentavu, Becca, alpine flowers on, 185
 Ascent of, 184
 as View Point, 185
 Depsang Plateau, 340
 Deutsche Alpen Verein, see German Alpine Club
 Deux Aigles, Col des, 78
 Pio des, Ascent of, 77
 Dhafari, Jebel Ras, ascent of, 18
 Wady, 18
 Dhaoli Dhar Range, 383
 Dharmasala, ski at, 384
 Cantonment, 383
 Matterhorn, attempts on, 385, 389, and first ascent of, 344, 393
 Diablons, first passage of, 50
 Dibona, Aiguille, 204, 206
 Dibona, Angelo, Guide, 9
 Diener, Prof. Dr. K., Elected Hon. Member of Alpine Club, 5
 Discharges of stones on Ushba, 92
 Disentis, 346
 Disgrazia, ascent of, 275
 Dolomites, the, Rey on, 242
 Japanese, 159
 Dolra, Glacier, 336
 Tau, 337
 Dolra-tschala Valley, 336
 Dr. Karl-Peters Haus (Kilimandjaro), 97
 Dom, the, ascent and descent of, from, and to, Saas Fee, 197
 Dôme, Puy de, sight of, 268
 Domjoch, Crossing of, 252, the first, 274
 First ascent from, of Tschohorn, 194
 Dongus-orun Mount, E. Peak of, first ascent of, 336
 Lesser, or Nakra-Tau, 336

ERE

Dongus-orun Mount (cont.)—
 Summits of, traverse of, 336
 W. and highest peaks of, first ascent of, 336
 Dongusorun, or Nakra, Pass, 338; crossing of, with horses, 143
 Dorées, Aiguilles, traverse of, 166-7
 Double Peak, see Bubis Khokh
 Douglas, David, Botanist, 358
 Douglas, Lord Francis, portrait of, 282
 Douglas, R. de Brehngel, book by, reviewed, 111
 Dragoman, a cunning, 26
 Drainage of Engelberg Valley, 95-6
 Dru, Aiguille du, Higher, 194; second ascent of, 252
 Lac du, 169
 Petit, night on, 243
 Dübi, Dr. H., book by, reviewed, 113
 Dufour Spitz, traverse to, 155
 'Dungforkhorns' (Mistgabelhörner), 113
 Dunod Chimney, 83
 Dutch New Guinea, Camp in, above 12,000 ft., 303
 Flowers and trees in, 301, at high elevations, 301, 303
 Mountaineering in, 267, 296
 Snow line, 14,200 ft. the lower limit of, 303
 Dyaks, 297; good companions, 304
 Dykes, on Krakatau, 180
E
 EAGLES, seen near Cogne, 185
 East, Sir Alfred, R.A., death of, 131
 Obituary notice of, 48
 Paintings of, 48
 Ebeneduh, first crossing of, 335
 Ebeneduhjoch, crossing of, 274
 Eandies, Pointe des, traverse of, 169
 Eoot, village, 150
 Ecrins, the, traverse of, at the age of 79, 103
 Edelweiss, in Kangra Himalayas, 393
 Edena Tau, fine view of, 138
 Einsiedeln, 346
 Elbruz, Mount, ascents of, 338, on ski, 410
 E. Peak of, ascent of, 144
 Twin summits of, 249
 Elliott, Julius Marshall, obituary notice of, 281
 Elliott's Wängli, 282
 Emile Rey, Col, ascent from, of Mont Blanc, 7; first crossing of, 200
 Emiluis, Mont, crossing of, 152
 Engadine Guides, the, 129
 Engadine, the, new huts in, 97-8
 Engelberg Aa, 96
 Valley, drainage of, 95-6
 Engländerführer, Anderregg as an, 274
 Entre Deux Eaux, 148
 Erebus, Mount, 310

ERI

- Eric, Mount, two peaks of, ascent of, 346
Eritrichium nanum, at Cogne, 182
 Erosion of granite, on Jebel Serbal, 23
 Errata, 103, 237
 Est, Cime de l', first ascent by St. Maurice page, 111
 Col de l', first passage of, 111
 Estellette Glacier, 85
 Evêque, Aiguille de l', ascent of, 53
 Exhibitions, *see under* Alpine Club Expeditions:—
 New (1913), 80
 (1913 & 1908), 230
 (1914), 407
 Various (1913), 93, 233
 (1914), 405
 Extinguisher, The, 35
 Ezeri, 143

- F**ALL of 1500 ft., on Ober-Gabelhorn, 84
 Feiran, Wady, 20
 Fenilla, the, 135
 Ferret, Val, flowers in, 169-70
 Ferro Centrale, Pizzo del (Cima della Bondasca), first ascent of E. arête, 9
 Orientale, or Torrión del Ferro, 395 & n.
 Pizzo del (Piz Qualivo), 394 n.
 Torrión del (Ferro Orientale), 395 & n.
 Filippi, Dr. E. d., Himalayan Expedition of, 237
 Finsteraarhorn, ascent of, by S.E. arête, 275
 First ascent of, 96-7
 Fiorelli, Punta, 398
 Fireflies at Casteldelphino, 376
 Firewood, juniper for, 47
 Fitzwilliam, Mount, 359 n.
 Flight over Mont Blanc, 95
 Flora (*see also* Alpine Flora), of Mont Catinet district, 188-9
 Flowers in Dutch New Guinea at over 8,000 ft., 301
 Fluh Alp, 153
 Fohn, La, crossing of, 339
 Folk-lore, Swiss, 106
 Fool-hen, in Canadian Rocky Mountains, 369
 Forbes, Aiguille, 175
 Fordoline Glen, 354
 Fortress Lake, 350
 Foulloze, 376
 Fournche, Grande, ascent of, 174
 Fournche, 146
 Free Access to the Gross Glockner, menaced, 334-5
 Freshfield, D. W., books by, reviewed, 247, 414
 Honour conferred on, 353
 Letters from, on Transliteration of Caucasian Place-names, 409-10
 Twin Peaks of Elbruz and their Summits, 249
 New President of the Royal Geographical Society, 234

FRÉ

- Fréty, Mont, 262
 Fuji-Yama, ascent of, 101; views of, 157
 Fünftingerspitze, traverse of, 53
GABELHORN Glacier, 275
 Ober, ascent of N.W. ridge, 28
 Orevasse on, huge, 277
 Disappearance in one, 281
 Fall of 1500 ft. on, 34
 First ascent of, 273
 Marvellous escape on, 279
 Summit of, 279
 Gaillard, E., books by, reviewed, 119-20
 Galdengoen or Telega Bodas, Volcano, 178
 Gamba, Aiguille, ascent of, 53
 Gamba Hut, 82, 98
 Garwal, expeditions in (1911, 1912, & 1913), 10
 Gaspard, Père, Dauphiné Guide, illness of, 334
 Gausta Fjeld, 417
 Géant, Col du, avalanche, enormous, from, 237
 Height of, 263
 Gebi, 138
 Gede, views of, 180
 Geikie, Mount, Attempt on, 367-8
 Nomenclature, 359 & n.
 View of, 364
 Gentian, in New Guinea, 301
 Gestola, height of, 250
 Ghergheli Glacier, ancient Crosses at snout of, 99-100
 Gimillian, 185
 Glace, Mer de, 264, 269
 Glaciers, Petite Aiguille des, ascent of, from S.E., 84
 Glectstein Cave, 282
 Gletscherjoch Pass, crossing of, 8
 Glitretind, 417
 Glockner, Gross, free access to, menaced, 334-5
 Gniffetti, Punta, traverse of, 155
 Goentoro, Volcano, 178
 Craterlets of, 178
 Goliath Mountains, 297
 Golind, or Snow-Cock, Kangra Himalayas, 385
 Gordon, Mount, 335
 Gorla Pass, crossing of, 389
 Gossakamm, the, 50
 Gotemba, 102
 Grand Forks Valley, 351, 356-7
 Granite erosion, Jebel Serbal, 23
 Pyramids, on Jebel Serbal, 23
 Grass, Hans, Guide, 129-30
 Granen Bund, passes of, 347
 Grefier, Blanc le, veteran novice at ski-ing, 103
 Grépon, La, traverse of, 83
 Aiguille de, ascents of, from Mer de Glace, 7, from S.W., 83
 'Grieslacher Herr, Ein,' 192
 Grisons, Alps of, expedition in (1913), 401
 Grivola, La, 183, 287
 Grivoletta, La, 183, 185
 Grohmannspitze, traverse of, 53
 Gspaltenhorn, first ascent of, 274
 Gudda, the, 383

HUT

- Guide-books, *see* Alpine, Caucasus, Mont Blanc, Peninne Alps, Savoy Alps
 Guides past and present, *see* Andereg, Blanc, Chabod, Cortina, Dibona, Engadine, Grass, Grefier, Jenny, Kain, Klucker, Lochmatter, Mochet, Perrod, Richmond, Thomson
 Guillestre, 378
 Gul Glacier, 140
 Gulba, Tur on, 141
 Glacier, 92
 Col, 93
 Gulsy or Betsho Pass, 338
 Güssfeldt Sättel, ice wall of, descent of, 8
HABEL, Mount, 335
 Häckel, Mount, first traverse of, 345
 Hager, Dr. K., *see* Pretti, Dr. F.
 Hakone Hills, 156
 Lake, 157
 Hannibal, and Col du Clapier, 247
 Hares, in Sinai, 20
 Hastabir Hump, ascent of, 390
 Traverses of, 391, the first, 343
 Heathcote, C. G., obituary notice of, 49
 Hell's Combe, 146
 Hérens, Dent d', traverse of, 94
 Hermitage Glacier, 413
 Hernal, or Kwisch Tau, 337
 Himalaya, expeditions in, De Filippi's, 237, 339
 Illustrations of, 117
 Notes on, 339, 410
 Spot in, 213
 and Folklore, 67
 Hironnelles, Col des, first descent of E. arête of Grandes Jorasses to, 7
 Hodaka-yama, crags of, 162
 Homra, Wady, 16
 Hoodoo, a, 356
 Hooker, Mount, 350
 Elevation of, 358
 Problem of, 365, solved, 366
 Horungtinder, 418 n.
 Hotels and Inns on Col de la Vanoise, 148
 Reale at Courmayeur, 272
 Houses, Peasants', details of, 320
 'Hunting-Book' of the Emperor Maximilian, 105
 Hunza campaign (1891), 110
 Huts and Chalets: *see* Allée
 Blanche, Boval, Britannia, Chalet du Mont, Clot de Valgaudemar, Crast' Agizza Sattel, Engadine, Gamba, Jamthal, Killmandjaro, Matterhorn, Mt. Blanc Group, Mortel, O.A.C., Plantonetto; Pyramides Calcaires, Rascher, Solvay; Swiss Alpine Club
 Hutton, Mount, two peaks of first ascent of, 345

IBE

- I**BEX, on Sinai, 16
 Ice-arête, on Brenva route of Mont Blanc, 306
 Ice-scapes, fantastic, in Canadian Rocky Mountains, 367
 Ice Wall of Güssfeldt Sattel, descent of, 8
 Idenburg Mountain, attempt on, 297
 Ikao, 158, 159
 Ilex forests, Kangra Himalayas, 383
 Inaccessible, Mont, Le, early name of Mont Aiguille, 370
 Indus Valley, rarely visited part of, 339
 Upper, 237
 Ingur, Gorge of the, 140, 143
 Innerkoferturm, S. Wall of, ascent by Riesen-kamin, 53
 Innominata, L', ascent of, by W. face, 93
 Insurance, Obligatory, of Members of Swiss Alpine Club, 236
 Isabella, Punta, S. Ridge of, ascent of, 53
 Isolée, La Pointe, first ascent of, 8
 Issora Valley, 380
 Italian Alpine Club, History of, book on, reviewed, 113-14
 Jubilee of, 6, 101, 201
 Alps, bouquetin in, 86
- J**ACK-PINE, in the Rocky Mountains, 361
 Jamthal Hut, rebuilding of, 98-9
 Japan Alps Station, 161
 Japan, mountain travel in, 156 *et seq.*; rambles in, 156
 Japanese Alps, accessibility of, 164
 Compared with Bergamesque Alps, 161, 163
 Climbers, at Alpine Club, 352 *et seq.*
 Dolomites, the, 159
 Jardin, the, 264
 Jasper, 350, 357, 358
 Jaune, Dent, ascents of, 112
 Tête, Cêche, 357
 Java, mountain travel in, 178 *et seq.*
 Javelle, Emile, book by, referred to, 166
 Javelle, Aiguille, ascent of, 173
 Jenny, Peter, Guide, 129
 Jorasses, Grandes, E. Arête of, to Col des Hirondelles, first descent of, 7
 Jordan's ascent of the Matterhorn, 289, 291
 Jotunheim, 417
 Jubilee of
 Italian Alpine Club, 6, 101, 201
 Swiss Alpine Club, 6, 100
 Juniper, for firewood, 47
 Jungfrau, the, ascent of, from the Roththal, 274
 Jupperhorn, ascent of, by W. arête, 401
 Juseugi Valley, 336

JUS

- Justedalsbrae, 418
 Juthia Pass, 343
 Crossing of, 388
- K**AGEN Valley, exploration of (1911), 10
 Kain, Conrad, Guide, 38; on New Zealand Mountains, 345, 346
 Kalaki Kasarma, 136
 Kamet, Mount, photograph of, 310
 Kamikochi, 162
 Kamura River, 302
 Kangra Himalayas:—
 Ascents in, 342
 Climbing in, 1908 to 1913., 342-4
 Climbing season in, 383-4
 Ilex and rhododendron forests in, 383
 Week-end scrambles in, 382
 Valley, 383
 Karagom, Khokh, ascent of, 404
 Range, 403
 Karakoram Mountains, expeditions in, 10, 411
 Nubra Valley in, 111
 Photographs of, 310
 Karangarna River, 413
 Karerai Dal (Lake), 393
 Kargil, 339
 Karissart Glacier, 87
 Karuisawa, 164
 Kashmir, 68, 397
 Mountain ranges of, 110
 N.W., new ascents in, 10
 Kasbek, ancient Monastery on, 99-100
 Kawa Kamodjan, Volcano, 178
 Ketai, Nullah, 385
 Kharman, 339
 Khondokore Glacier, photograph of, 310
 Kibo, 97
 Kilas Range, crossing of, 340
 Kilimandjaro, Club Huts on, 97
 King, Sydney Locke, death of, 222, 256; obituary notice of, 195
 King's Camp, at Lauzon, 182
 Kinney, Lake, 38
 Klucker, Christian, Guide, 97
 Knubel, Peter, Guide, 284
 Kōfu, 157
 Kōnsa Nag, Lake, 46
 Krakatau, eruption of (1883), 180
 Tidal wave caused by, 181
 Visit to, 180
 Kringha Mountains, 416
 Kuala Lumpur, 298
 Kubus, 404
 Knish, or Kwisch, Glacier, 336
 Group (Central Caucasus), 335
 Pass, 338
 Crossing of, 337
 Kulu, 416
 Women as travellers in, 416
 Kurz, Louis, book by, reviewed, 347
 Kwisch Tau, or Hewai, 337
- L**ABODA Group, Central Caucasus, expeditions in, 404
 Highest summit in first ascent of, 404

MAR

- Ladakh, 339
 Ladder taken on climb, 262, 269
 Lakha 'gôt,' 384
 Lakuri, 143
 Lalidererwände, ascents of, 9, 249
 Lam Dal, sacred lake, 393
 Lamayuru (Ladakh), 339
 Lang Island, 180
 Langedal Glacier, 419
 Langkofel, the, traverse of, 53
 Laquin Joch, first passage of, 50
 Laquinhorn, first ascent of, by E. face, 9, 85
 Larden, W., book by, reviewed, 106
 Lauzon, King's Camp at, 182
 Lavey, La, Glen, 382
 Lavincusse, Punta, ascent of, 184
 Lazuli, Lake, 36 n.†
 Lebanon, the, Barada river in, 96
 Ledösch Tau, traverse of, 337
 Leh, 340
 Leirag, Peak, 336; traverse of, 337
 Lemons, in Sinai, 21
 Linda Route up Mount Cook, 345, 411-12
 Lion, Col du, visit to, 249
 Locche, Colle delle, 154
 Lochmarter, Josef Maria, Guide, 284
 Lodalskaupa, 418
 Loen, Lake, 418
 Long, Lac, 148
 Losa, Bocchetta della, 150
 Lötschenthal, Upper, inscriptions from, 106
 Luigi Amedeo, E. ascent of, 7, 200
 Luis, Grande, Col de la, 170
 Lynx, Mount, ascent of, 76
 Lyskamm, ascent of W. summit from the N.W., 405
- M**OKINLEY, Mt., conquest of, 63, book on, reviewed, 243
 Macugnaga, ascent from, of Nord End, 7
 Magharah, Wady, 19
 Maiwa Kundinvo, ascent of, 416
 Maljasset, or Maurin, 354, 376
 Malte Brun Pass, first crossing of, 345
 Mamison Glaciers, 135
 Khokh, ascents of, 88, 135
 Road, 133
 Mandikogel, the, 50
 Mandlwand, ascent of, 51
 Mantering, Mount, first ascent, of, 845
 Manse, Col de, crossed driving, 378
 MS. Journals of the late A. W. Moore, 332
 Manzagam, village, 46
 Manzina, Olma della, ascent of, by N. face, 9
 Marango Hut, Kilimandjaro, 97
 Margherita, Punta, first ascent of, 7
 Markha, El, desert stretch, 26
 Marmolata, Südwand, ascent of, 8
 Marmots, in Sinai, 16
 Marshall, J. A. Garth, fatal accident to, 281
 Marten-cat track, in the Caucasus, 90

MAR

- Martin, Dr. W., and others, book by, reviewed, 118
 Mary, Val de, 376
 'Master, The, of Game,' book by W. A. Baillie-Grohman, 103
 Matterhorn, the, ascents of, by Jordan, 289, second by E. face, 281, in winter, 8
 Hut on, 291
 Impression made by, 282
 Stone avalanches on, 286
 Summit of, in 1868., 286
 View from, 287
 Zmutt Grat on, 37-8
 Dharmasala, attempts on, 385, 389, and first ascent, 344, 393
 Maude, W., death of, 122
 Maudit, Mont, 267; crevasse on, 267
 Maunga, Mt., first ascent of, 345
 Maurin, or Maljasset, 354, 376
 Mawensi, 97
 Maximilian, Emperor, the 'Hunting-Book' of, 105
 Memorial to the late Clinton Dent, 58
 Mer de Glace, 264, 269
 'Mer de nuage,' a, 393
 Merzbacher's map, inaccuracy of, 403
 Meyer Family, and the S.A.C., 113
 Mice tracks, in the Caucasus, 90
 Midi, Aiguille du, 265, brandy needed on, 266; descent of face of, 274; fury of the blast on, 266; great cold on, 266
 South foot of, sleeping place under, 265
 Midi, Dent du, ascents of
 First, from Champéry, 112
 of All the summits in one Day, 112
 in January, 391
 Book on, by Douglas, reviewed, 111-12
 Milano, Punta, 396
 Mimika river, New Guinea, 297, expedition on, 257
 Minto, Earl of, death of, 255
 Miyanoshta, 156
 Mochet, Pierre, Guide, 262, 263
 'Modern Mountain Craft' by G. W. Young, forthcoming book, 332-3
 Moming Pass, second crossing of, 276
 'Mon,' the, first ascent of, 342-3
 Main Peak, ascent of, 387
 S. Peak, first ascent of, 313
 Traverse of, 389
 Mont, chalet du, 146
 Montgomery, Mount, traverse of, by new route, 345
 Montserrat (Spain), resemblance to, of Jebel Serbal, 22, 23
 Moore, A. W. (the late), Journal of, 329, MS. Journals of, 332
 Morshhead, Frederick, death of, 251; obituary notice of, 186

MOR

- Mortaretto, 271
 Mortel Hut, 98
 Moschegg Haus, inscription on, 107
 Mosquitoes, in Sinai, 20
 Mountain, a, the worst way to reconnoitre, 357
 Mountain scenery, appreciation of, by Dante, and da Vinci, 116
 Sickness, 65
 Travel in Java, 178 *et seq.*
 Mountaineering
 in Art, two books on, reviewed, 114-16
 Classical, 116
 in Dutch New Guinea, 257, 296
 in 1855, 261
 in N. Zealand, possibilities of, 253
 Mountaineers, effects on, of alcohol, 239-40
 Mountains, origin, &c., of, 66
 Muande, Col de la, 382
 Glacier, 382
 Mukatteb, Wady, 19
 Murgisthang, Glacier, 111
 Muzelle, Roche de la, to Valsenestre, crossing of, 403
 Myogi-San, 159
 Myogi Village, 160
 Myôjô-ga-take, 157

- N**ADELJOCH, first crossing, of, 274
 Nails, *see* Boot-nails
 Nakra, or Dongus-orun Pass (*g.v.*), 338
 Nakra-Tau or Lesser Dongus-orun, 336
 Nakra Valley, 143
 Naltschuk, 144
 Nanga Parbat, round, 320
 Nawika La, crossing of, 339
 Nepal, 323
 Nera, Colle della, crossing of (1913), 182
 Neve, A., book by, reviewed, 110
 Neweripa, River, 302
 New Guinea (*see also* Dutch New Guinea), 296
 New Zealand, mountaineering possibilities of, 253
 Notes on, 344, 411
 Trout-fishing in, 254
 Vegetation of, 254
 Tree-ferns of, 254
 Wakatihu Lake in, 254
 Alps:—
 Ascents in, 344-6
 in 1914., 345-6
 Description of, 253
 Glaciers in, 413
 Peaks, unnamed in, ascents of, 345
 Snow-clad Volcanoes in, 412
 Nicolai, S., Cossack post at, 133
 Nikko, walks at, 153
 Nord End, the, ascent of, from Macugnaga, 7
 Norway, highest mountains in, 417
 Norwegian gold-digger, a, 364-5
 Nuam Quam, 122, 123
 Ascent of, 91, first, 139

PET

- Nubra Valley, Karakoram, 111, 339
 Nun Kun Massif, peaks of, 110-11, height of, 410
 Nushik Pass, attempt on, 110

- O**ASIS in Sinai, 20
 Obituary Notices:—
 Amphlett, George Thomas, 197
 Boss, Theophil, 313
 Corry, John Beaumont, 397
 Cullinan, Sir F. F., K.C.B., 194
 East, Sir Alfred, 48
 Heathcote, C. G., 49
 King, Sydney Locke, 195
 Morshhead, Frederick, 186
 Pöhl, Franz, of Mathon, 198
 Preuss, Paul, 60
 Oedstein, Grosse, Ascent of, 53
 O.A.C., *see under* Austrian Alpine Club
 O'Hara, Lake, 76
 Oil-borings at Jebel Tanka, 26
 'Old Guard' the, of the Alpine Club, 3 *et seq.*
 Olen, Col d', 155
 Ollero, Sette Comuni, tableland at, 96
 Oni, 138
 Oppenheim, L. C. F., wounded in action, 407
 Oren, Col d', *see* Arolla, Col de la Reuse de
 Combe d', 40, 43, 44, 45
 Orange-yama, double peak of, 163
 Oro Pass, 396
 Orpheus, 267
 Orthography of Caucasian Place-names, 409-10
 Orlier, the, traverse of, 53
 Ossa on Pelion, 291
- P**AIN de Sucre (Aiguilles du Soreiller), ascents of, 80, 203
 Pandanus trees, Dutch New Guinea, 301
 Pansies, at Cogne, 183
 Papandajan, Volcano, 178, 179
 Paradis, Grand, Ascents of, 50, 275
 Parco National, Le, de la Berarde, 334
 Parrachée, Dent, 146; ascent of, 145
 Partridge, Great Rock, in the Caucasus, 87
 Parvattiya Nullah, 416
 Passon, Col du, crossing of, 172
 Peasants' Houses, details of, 320
 Pélérins, Glacier des, 77, 78
 Pelvoz, Mount, 147
 Penandjaan, Volcano, 178
 Pennine Alps, expeditions in (1913 & 1908), 85, 94, 231; (1914), 405; new 'Guide' to, 333
 Perdu, Mont, 324
 Perduto, Colle, crossing of, 150
 Perdot, Joseph Marie, Guide, 262
 Persévérance, Aiguille de la, accident on, 79
 Pétérét or Peutere, Aiguille Blanche de, ascent of, by S.E. arête, 55, 81, the first, 9

FET

- Pétérét (*cont.*)—
 Mont Rouge de, accident on, 4
 Ascent of, 53
 Philpott, Rev. T. H., a famous
 veteran, 335
 Plantonetto Hut, 150
 Pickford, Hon. Mr. Justice,
 elected President of
 Alpine Club, 125
 Honours of, 349
 Pierre Joseph, Col de, attempted
 and crossed, 50
 Pillar Rock, new route up, dis-
 covered in 1861., 281
 Pioda, Punta, 395
 Pir Panjal Range, Brahma Peaks
 of, attempts on, 46-8
 'Pitons,' 85
 Placidus a Spescha, 216; life
 of, 346-7
 Plan, Aiguille du, ascent of, by
 S.E. arête, 96
 Chamonix faces of, 77
 Glacier Nord du, 79
 Po, River, source of, visit to, 374
Podocarpus papuanus, 301
 Pöll, Franz, obituary notice
 of, 198
 Ponting, Mr., Antarctic photo-
 graphs of, 310
 Portalet, the, traverse of, 177
 Chandelle, La, du, 177
 Pot-holes, on Sinal, 18
 Pousset, Pointe du, 182
 Ascent of, from Trajo Gla-
 cier, 183
 Pralongnan, 147
 Prarayé, 40, 45
 Predigtstuhl, descents of, 249
 President of Alpine Club: Hon.
 Mr. Justice Pickford
 elected, 125
 President Peak, Yoho Valley, 335
 Pretti, Dr. F., and Dr. K. Hager,
 book by, reviewed, 346
 Prouss, Paul, obituary notice
 of, 50
Primula farinosa, near Martigny,
 169
Stuartii, on Pir Panjal, 47
 Provisions, in Caucasus, 211
 Pryor, P. A. L., death of, 258
 Psychology of climbing, 215
 Ptarmigan, in Canadian Rocky
 Mountains, 368; in
 the Caucasus, 134
 Pyramids, Granitic, on Jebel
 Serbal, 23
 Pyrola, 185

QUALIVO, Piz, North face of,
 394

- RAEBURN, Mr., expedition of,
 to the Caucasus
 (1914), 240
 Rainfall, excessive, in Japanese
 Alps, 161, 163
 Rainier, Mount, 323
 Rascher Hut, 98
 Rats and mice as food, 298
 Ré, Piano del, a night at, 373-1

REA

- Reale, Alberg, at Courmayeur,
 272
 Reconnoitring a mountain, the
 worst way of, 357
 Rekom, ancient Shrine of, 133
 Remo Glacier, 411
 Resplendent, Mount, 357; ascent
 of, 76
 Rey, Guido, book by, reviewed,
 242
 Rhododendron forests, Kangra
 Himalayas, 383
 Reviews and Notices of Books,
 103, 242, 346
 Richmond, Guide, death of, 222
 Rif du Sap, village, 381
 'Riffelhorn Gendarme,' 384
 Rimpfischhorn, ascent of, from
 the Adlerjoch, 153
 Rion Valley, 138
 Robson, Mount, 350
 Ascent of, 35; first com-
 plete, 76
 Blizzard on, 38
 Station of, 357
 Three Climbs on, 355
 Traverse of, 76
 Pass, 76
 Rock Partridge, Great, in the
 Caucasus, 87
 Rocky Mountains, Canadian
 Bird life in, 368, 369
 Fantastic ice-scapes in, 367
 Trencherous cravasses in, 356
 Vegetation in, 361
 Weather in, 350
 Wheeler's exploratory work
 in, 76
 Röselm, Ole Halvorsen, 417
 Rom, Punta, ascent of, 184
 Ronchi, Bochetta del, 96
 Colle del, first crossing of, 96
 Roping, absence of, 282
 Rosa, Monte, 68
 Roseg, Piz, ascent of, 274
 Rothhorn, the, ascent of, from
 Zinal, 274; traverse
 of, 191
 Rouge, Mont, du Brouillard, first
 ascent of, 200
 Roura, Col de, crossing of, 376
 Royal Geographical Society, New
 President of, 234
 Rubber Soles, essential, in Sinal,
 18
 Rulingsbrae, ice grotto on, 418
- 'S' PASS, 390
 'S' Pass Peak, first ascent of,
 344, 391
 'Sabots,' 92
 St. Maurice face of Cime de l'Est,
 first ascent of, 111
 St. Vincent, Souffrière of, 179
 Sakkar, Jebel, Ibn, 17; climbing
 on, 16
 Salak, views of, 180
 Salt, and sheep, 380
 Saltoro, the Name, and the
 Bilaphond Pass, 340
 Notes on the above, 340-1
 Valley, 339
 Sand, penetrating power of, 23
 Sand sea, on Bromo, 179

SIN

- Sandstone Mountains, Sinal re-
 gion, 18
 Sap, Rif du, village, 381
 Saramag, ascent of, 89
 Glacier, 135
 Eastern, 90
 Western, 89, 90
 Saussure, M. de, 264
 Savole, Aiguille, ascent of, 53
 Savoy, Alps of, guide to, 119
 Scerscen Grat, 397
 Scharwandalm, the, 50
 Schienhorn, ascent of, by
 E. arête 86, first by
 this route, 9
 Schmadrijoch, ascent of, 335;
 crossing of, 274
 Schreckhorn, accident on, 281;
 third ascent of, 256
 Schweizer Alpen Club, *see* Swiss
 Alpine Club, *below*
 Sciara, of Stromboli, 180
 Sciora, Ago di, 395
 Scott, Sir Walter, quotation from,
 269
 Sealy, Mount, traverse of, by new
 route, 345
 Sefton, Mount, ascent of, by new
 route, 345
 Peak S. of, first ascent of, 345
 Sengla, La, 39
 Ascent of, by N.E. arête of
 Central and N. Peaks,
 40
 of N. summit from Col de
 la Reuse d'Arolla, 38
 of S. Peak, the first, 40
 History of, 39-40
 Serbal Jebel, 18, 20
 Ascent of, 22-3
 Granitic erosion, and pyramids
 on, 23
 Sertori, Punta, first ascent of
 actual summit of, 8-9
 Sesiajoch, second crossing of,
 274
 Setakwa branch of Utakwa river,
 298
 Sette Comuni tableland, at
 Ollero, 96
 Sharksteeth, Lower Peak, first
 ascent of, 345
 Sheep, and salt, 380
 Shollal, Wady, 19
 Shigar Valley, 339
 Shimashima village, 161
 Shirahone, Baths of, 163
 Shkara, sunrise on, 139
 Group, expeditions in, 91
 Shoji Lake, 158
 Siachen Basin, 218
 Glacier, 218; discovery of, 111;
 exploration of, 10;
 photographs of, 310
 Sikkim, expeditions in, 10
 Silberhorn, only known ascent
 of, 335
Silene acaulis, on Dentavru, 185
 Sils, Botanical garden at, 98
 Sinal, flora and fauna of, 16, 20, 21
 Oasis in, 20
 Old turquoise mines in, 19
 Pot-holes on, 18
 Scrambles in, 18
 Snow in, 23
 Sunsets on, 27
 Very cold nights on, 17

SIR

Sirac, the, 354
 Ascent of, 381
 Climbs on, 408
 N. face of, 381
 Skagastöfnd, 417
 Skardu, winter in, 339
 Skenis-akali, the, 138
 Ski, at Dharmasala, 384
 Expeditions on, in the Alps, 54
 Veteran novice with, a, 103
 Skiddendalstinder, the, 418
 Slab Peak, ascents of, 384, 388,
 the first, 342
 First traverse of, 343
 Smereo, 179
 Smyth-Osbourne, John, death
 of, 258
 Snow, in Sinai, 23
 Snow Bird Pass, 355
 Snow Bog, in Caucasus, 90
 Snow-cock, or Golind, Kangra
 Himalayas, 385
 Snub-nose, Mount, 362
 Soera, Val, S. Punta of, ascent
 of, 96
 Soles, *see* Rubber Soles
 Solfatara, a, called 'Big Hell,' 157
 Solvay, Refuge, 284 n.†
 Somma, 179
 Soreller, Aiguilles du (Pain de
 Sucre), ascents of,
 80, 203
 Souffrière, the, of St. Vincent, 179
 Sowa Lake, 164
 Spectacles, neglect to use, 270
 Spencer, Sydney, Votes of Thanks
 to, 11, 349-50
 Spillimachen Mountains, expedi-
 tion to, 10
 Spirits of Wine, 389
 Sport in Art, Baillie-Grohman's
 book on, reviewed, 103
 in the Himalayas, 213
 and Folklore in Himalaya, 67
 Sports, winter, 218
 Squirrels, near Cogne, 184
 Steinitzer, A., book by, reviewed,
 115-6
 Stone Avalanches, on
 Matterhorn, 286, 292
 Ushba, 92
 Stromboli, Sciarra of, 180
 Strutt, E. L., wounded, 407
 Stryn, Lake, 418
 Subashiri, 102
 Sucre, Pain de (Aiguilles du Sor-
 eiller), ascents of, 203
 Südlenspitze, E. arête of, 86
 Sunsets, on Sinai, 27
 Suphelle Glacier, 419
 Sustlöhütte, new Hut of S.A.C.,
 236-7
 Sweet Potatoes, 298, 300
 Swiss Alpine Club, accounts, 236
 Association of British Mem-
 bers of, Swiss Guides'
 Relief Fund started
 by, 408
 History of, by Dübi, re-
 viewed, 113
 Huts of, restrictions on use
 of, 99
 New, 236-7
 Jubiles of, 6, 100
 New Regulations of, 99
 Obligatory Insurance of Mem-
 bers, 236

I SWI

Swiss Alps, Club Huts in, in
 Winter, 98
 Archaeology, 109
 Architecture, 109
 Chalets, Inscriptions from, 106
 Folklore, 106, 109
 Guides' Relief Fund, started by
 British Members of
 S.A.C., 408
 Switzerland, winter sports in, 62
 TACUL, Mont Blanc du, 266
 Tair Azrak, Jebel, ascent of, 25
 Taiyibeh, Wady, 16
 Taléfre, Aiguille de, first ascent
 of, 194
 Tana Glacier, 405
 Tanjong-Iriok, visit to, 180
 Tanka, Jebel, oil-borings at, 26
 Tarantula, in Sinai, 21
 Täschhorn, ascents of, over
 N. arête, 252; first
 ascent of, from the
 Dom Joch, 194
 Tavetscher Thal, 347
 Telega Bodas, or Galo-groen,
 Volcano, 178; crater
 lake on, 178
 Telokbetong, in Sumatra, destruc-
 tion at, 180
 Ten Provinces Pass, 157
 Tenoriffe, Canadas of, 179
 Teram Kangri, elevation of, 111
 Termignon, 149
 Terskol Ridge, bivouac on, 144
 Tetuuld, height of, 250
Tetraogallus caucasicus, 87
 Thal, Jebel Ras, 17
 Thar, near Dharmasala, 390
 Thomas, Dr. Théodore, expedi-
 tions of, in the Cau-
 casus (1913), 100
 Thomson, Guide, death of, 222
 Tödl, ascent of, 259
 Todtengebirge, 52
 Todtenkirchl, W. face, ascent of
 alone, 52, 53
 Tokositna Glacier, 244
 Toral-Limmi Pass, 392, 393
 Tosari, 178
 Tour, Aiguille du, first ascent
 of, 50
 Col du, crossing of, 172
 Trajo, descent of, 183
 Glacier, Pointe du Pousset,
 ascent of, from, 183
 Glen, 184
 Pointe de, 184
 Transliteration of Caucasian
 Place-names, 409-10
 Traversette, Col de la, crossing
 of, 373
 Tree-ferns of New Zealand, 254
 Trevilian, E. B. C., death of, 332
 Triple Peak, 87
 Trisselwand, the, ascent of, 52
 Tronchey, Aiguille de, ascent
 of, 53
 Trout-fishing in New Zealand, 254
 Tryfan, 193
 Tsaya, Aiguilles, 133; ascents
 of, 86
 Glacier, 133, 135, 402

VIE

Tsaya (*cont.*)—
 Glen, 133
 Group (Adai Khokh), expedi-
 tions in, 86, 410
 Tsaya-Karissart Pass, reached,
 403
 Tsharinda Peak, 336
 Tshantschachi Kasarma, 91
 Khokh, ascent of, 90, first as-
 cent, 137
 Night on, at 13,700 ft., 138
 View of, 134, 136
 Tsitelli, ascent of by Dent, 405
 Tuckett, F. F., death of, 120
 Tuilisa Glacier, 90
 Tuilisis, 90
 Tunsbergdalsbrae, 420
 Tür, in the Caucasus, 86, 92, 124,
 133, 141
 Tür Khokh, ascents of, 86, 133
 Türmlhorn (Simmenthal), first
 ascent of, 334
 Turquoise Mines, old, in Sinai,
 19, 25
 Twilisa Glen, 136
 'Two-Gun Peak,' 384
 Ascent of, 386
 Ascent of both summits, 343
 E. summit, first ascent of,
 342
 W. summit, ascents of, 343, 349
 Tyllisis Mta, 402

ULLARGE Khokh, Caucasus,
 ascent of, 134
 Unguru Mountains, 97
 Unnamed Peaks in New Zealand,
 ascents of, 345
 Urushieh, 144
 Ushba Group, Caucasus, expedi-
 tions in, 92
 Mount, N. and S. Peaks of,
 attempts on, 142
 Peak of attempted, 92
 Ushkul, 91, 138
 Utaskwa, Mount, 302
 River, 298; visit to, 297

VALGAUDEMAR, Le Clot de,
 hut at, 381
 Vallonpierre, Col, 380
 Lake, 381
 Valpelline, Tête de, 39
 Van de Water, Lieutenant, 298
 Vanoise, Col de la, inn on, 148
 Var, Col de, 378
 Vazisvari Pass, crossing of, 138
 Vegetation in Dutch New Guinea,
 301, at 13,500 ft.,
 302
 in New Zealand, 254
 Vencon, the, crossing of, 332
 Venus, Mount, 302
 Vertatscha, the, accident on, 79
 Verte, Aiguille, ascent of, from
 Argentièr glacier, 275
 Veteran, a famous, 335
 Victoria, Mount, New Guinea,
 279
 Vierseelsgrat, ascent of, 8

VIL

Vilpata, the true Adai Khokh, 90
 Vinci, Leonardo da, and mountain scenery, 116
 Viso, Col, crossing of, 374
 Monte, ascents of, 353, 375
 View from, 353
 Visp, from Zermatt, in 4 hours 8 minutes, walking, 191
 Vladikavkaz, 132
 Volcanoes, snow-clad, in New Zealand, 412
 Vologata, ascent of, 401
 Vuignette, Col de, 41

WAKATIHU, Lake of, New Zealand, 254
 Wakefield, Mount, ascent of, by new route, 345
 Wania River, 302
 Wastdale Head, long walk from, 281
 Weather in the Courmayeur District, 237
 in the Rocky Mountains, 350
 Weisshorn, the, ascent of, 283

WHE

Wheeler, A. O., exploratory work of, in Canadian Rocky Mountains, 76
 Mount Geikie, the, of his map, 359 & n.
 Whirlpool Breithorn, 363; attempt on, 366
 River, trip up, 355
 Valley, 350, 358
 Whitehorn, Mount, ascent of, 76
 Whympet, Edward, quoted, 369
 Wilhelmina, Mount, snow-line reached on, 297
 Willow, dwarf, on Dentav, 185
 Wind, furious, on Aiguille du Midi, 266
 Winter ascent of the Matterhorn, 8
 Winter, Club Huts in, in Swiss Alps, 98
 Winter in Courmayeur, 95; in Skardu, 339
 Winter Sports, 218; in Switzerland, 62
 Wood, H., and Cortina, 100
 Woolley's Rock, 88, 402
 Worsfold, W. Basil, book by, 180
 Wundt, Th. von, book by, reviewed, 114

ZWI

YAKE-DAKE, active Volcano, photograph of, 310
 Yentna River, 244
 Yoho, Upper, camp at, 335

ZAGAR Pass, crossing of, 139
 Zalmiag Peak, 336; crossing of, 337
 Zea (Freshfield), *see* Adai Khokh
 Zebur, Monte, ascent of, by S.W. face, 9
 Zena, hamlet, of, 139
 Zennepi, Pointe du, traverse of, 169
 Zermatt to Visp, in 4 hours 8 minutes, walking, 191
 Zeskho, valley of the, 139
 Zinne, Kleine, cross traverse of, 53
 Kleinste, first ascent and traverse of, 53
 Zmutt Grat, on the Matterhorn, 37-8
 Zocca, Forcella di, 395
 Zumstein Spitze, crossing of, 155
 Zurbriggen's route up Mount Cook, 344
 Zwischenjochengrat, the, 386; first ascent of, 342

END OF VOLUME XXVIII

118

Date Due

Due

Returned

Due

Returned

In-Library Use Only
Item cannot leave library

FLARE

LAD

796.5205

A 457

V. 28

1914

UNIVERSITY OF FLORIDA



3 1262 09876 2320